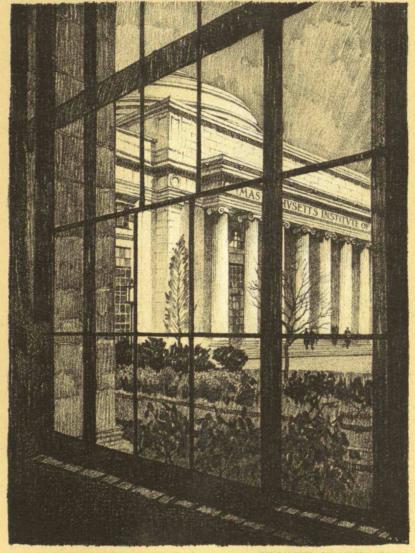
THE TECHNOLOGY REVIEW



THE DOME FROM BUILDING THREE

BY SAMUEL CHAMBERLAIN, '18

JANUARY 1927

RELATING TO THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

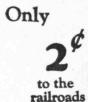
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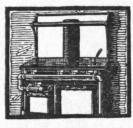
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Fau Your Pressing Negos

Howard J. M. Millin-21

Howard F. MacMillin, Vice-Pres. in charge of Sales The Hydraulic Press Mfg. Co.

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Relating to the Massachusetts Institute of Technology

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SAMUEL C. PRESCOTT, '94 Vice-Presidents
HENRY F. BRYANT, '87

ORVILLE B. DENISON, '11, Secretary-Treasurer

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The TECHNOLOGY REVIEW

Volume 29 / JANUARY, 1927 / Number 3

The Trend of Affairs

Course XVII

BUILDING Construction now takes its place in the curriculum of the Institute, beginning with the opening of the second term next month, as Course XVII, covering four years of instruction and leading to a degree of Bachelor of Science. The course will be under the direction of Professor Ross F. Tucker,

'92, whose appointment to the Facultyhas already been noted.

Louis J. Horowitz, President of the Thompson-Starrett Company of New York, founded the course which is established under a generous grant from the Louis J. and Mary E. Horowitz Foundation. Professor Tucker, who until recently was attached to the construction staff of the Thompson-Starrett Company, brings to his new task knowledge gained through broad experience in building construction. The purpose of the new course is to fit men for the constructional profession, combining training for field operations with business and engineering administration.

Instruction will include applied mechanics, strength of materials, the chemistry of explosives, cements and protective coatings, rock formations and soil mechanics, surveying, the design of structural steel, reinforced concrete and masonry. Special attention will be given to training in banking and investment problems to enable the constructor to meet the broader problems of his work, in which he will also study engineering administration, business, corporate and real estate law, contracts, insurance, estimating, cost analysis and accounting.

The course is designed to give a thorough knowledge of the methods, machinery and appliances that enter into the assembly and erection of materials of building, and particularly in the coördination of the various crafts and the formulation of time schedules. The great importance of training in the task of directing large forces of men engaged in construction work, with an understanding of the human problems involved, is recognized

as a prime objective of the course.

course.

New Division

NE FURTHER addition to the Institute's now rapidly broadening activities went into effect on December I with the creation of the Division of Municipal and Industrial Research under William A. Bassett, newly appointed Professor in charge.

The work of the new Division will be a pioneer venture, not only for the Institute, but for any educational institution. There are no academic precedents to follow. Its activities are aimed to widen the engineering field by giving definite recognition to the important contributions which engineering, economic and statistical knowledge may make in governmental affairs which in turn bear directly on many phases of social and industrial life as yet little studied by engineers.

Undertakings in prospect for the new Division already include such work as surveys of industrial development, rail and water transportation facilities, studies of the relationship of raw materials to products and markets, development of power facilities and proper regulation of urban and inter-

From a lithograph drawn for The Review by Kenneth Reid, 18

FORMER DEAN ALFRED E. BURTON

Who again identifies bimself with the progress of the Institute by taking charge of the Dormitory Campaign. See page 158

urban traffic.

The Division finds itself in being primarily through the generosity and interest of John E. Aldred (well-known at Technology now, through the Aldred Lectures of his establishment) whose gift, to be used as a revolving fund, is responsible for its creation. Mr. Aldred, as a prominent industrialist, (See The Technology Review for December, 1923) first became interested in problems of municipal research in 1914 during the course of industrial investigations made in the city of Baltimore. The complete lack of any organization at that time capable of conducting some studies in which Mr. Aldred was interested impressed itself upon him strongly, and to this may perhaps be traced the endowment with which the Institute will now undertake a new academic development.

There will be no undergraduate instruction in the new Division, the set-up of which, within the Institute, will be analogous to that of the present Division of Industrial Coöperation and Research.

Said Professor Bassett: "Practically all activities conducted by government to-day are dependent for their operation, in some measure, on engineering service. These include not alone the construction of public works such as streets and sewers but also the furnishing of many services, such as traffic regulation, the collection and disposal of municipal wastes and other matters which closely affect both the comfort and convenience of the

public. Changed conditions in community life brought about largely in the last twenty years through the development of the motor vehicle have resulted in

creating problems involving social and economic considerations which the engineer and other officials in public life have not been able to cope with successfully. A contributing cause to this situation is the character of training given the engineering student, which has been directed almost entirely to meeting the needs of industry and in which little, if any, recognition has been given to the



® Harris and Ewing MAIL GUARD Brigadier-General Logan Feland, '92, U. S. M. C., lately appointed protector of the mails

equally important needs of engineering administration in government. As a natural consequence there is a marked demand for engineering service in government adequate to cope with these engineering problems involving important social and industrial considerations which confront practically every community today."

Professor Bassett comes to the Institute with twenty-five years of professional experience, a considerable part of which has been concerned with engineering problems met with in the administration of government. He is a graduate of the Harvard Engineering School in the Class of 1901. With a background of ten years experience in the fields of engineering design and construction, his work for the past fifteen years has been directed primarily towards furnishing advisory and consulting service to governmental units - cities, counties and states - in the development of sound administrative practice. In connection with this work, while acting as engineering associate of the New York Bureau of Municipal Research, he has made comprehensive studies of engineering and administration, among others, in the states of New York, South Dakota and Virginia, and the cities of Newark and Camden, N. J., Richmond, Va., Charleston, S. C., and New Orleans, La.

The new Division is already functioning actively. The city of Providence,

through its Chamber of Commerce on December 7 indorsed a proposal for an industrial survey of the city to be made under the direction of Professor Bassett,

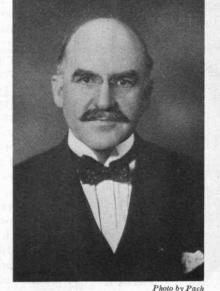
and has already under taken to raise the necessary funds.



Photo by Notman
THE ADMINISTRATOR
Professor William A. Bassett, in charge
of the Division of Municipal and Industrial Research, brings wide experience to aid in the new venture

Death

ELOVED by his confrères and associates, esteemed and honored in the scientific world, Forris Jewett Moore, Professor of Organic Chemistry at the Institute, died November 20 at his home in Cambridge. A little more than a year ago



THE DONOR

John E. Aldred, banker and industrialist. As recorded on this page he now makes possible a new Division of Municipal and Industrial Research



OFF FOR THE ISTHMUS

The PN-10 No. 1, navigated by Lt. Byron J. Connell, S. M., '25, taking off from Hampton Roads on its unsuccessful non-stop flight to Colon, Panama. See the story on page 156

he was forced to give up active work as teacher, although he had continued with a small group of students in research work, despite an encroaching disease of the heart.

The record of his career is full. Born in Pittsfield, June 9, 1867, he was graduated from Amherst College in 1889. He then served as laboratory assistant at Amherst for two years; in 1893 received his degree of Doctor of Philosophy from the University of Heidelberg, Germany, and next became an instructor in chemistry at Cornell University.

In 1894 he was appointed an Assistant Professor of Chemistry at Technology, and in 1912 received a full Professorship in Organic Chemistry. During the years 1910 and 1911 and from 1917 to 1919 he lectured on organic chemistry at Harvard. He was an active contributor to scientific journals, wrote a number of books on his chosen topic, including a history of chemistry published in 1918.

He was a fellow of the American Academy of Arts and Sciences and a member of the Deutsche Chemische Gesellschaft, the American Chemical Society, and the National Research Council. He is survived by his wife who was Emma Tod of Edinburgh, Scotland.

Said one of his former students in The Tech, "Professor Moore was the best teacher the writer has ever come in contact with. . . . His broad sympathy, the ability to understand the idiosyncrasies of the students and the alleviation of their difficulties made them all fond of him.'

Alumni Dinner

HARLES M. SCHWAB, Chairman of the Board of Directors of the Bethlehem Steel Company, President of the American Society of Mechanical

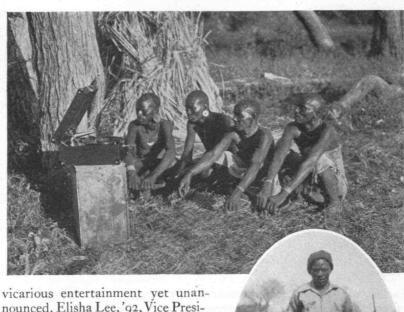
Engineers, is to be the principal speaker at the Annual Dinner of the Alumni Association on January 15 at the Boston Chamber of Commerce Building. It will be his second appearance before a Technology gathering, for on October 17, 1922, he spoke before a convocation in Walker Memorial. Well known to all is his high place in the steel idustry; to all who have heard him is known his complete competence at postprandial oratory, the task undertaken by him for the Alumni Dinner.

President Samuel W. Stratton and Professor William Emerson, Head of the Department of Architecture, are also on the program as formal speakers. Doubtless there will be others; Former-Dean Burton, for instance. In counterpoint with this solid medley will come



DRESSED FOR TRAVEL

Lt.-Commander H. T. Bartlett, Lt. L. W. Curtin, and Lt. Byron J. Connell, S. M., '25, shortly before their hop-off for the Panama Canal



vicarious entertainment yet unannounced. Elisha Lee, '92, Vice President of the Pennsylvania Railroad and this year President of the Alumni Association, will preside.

Society of Arts

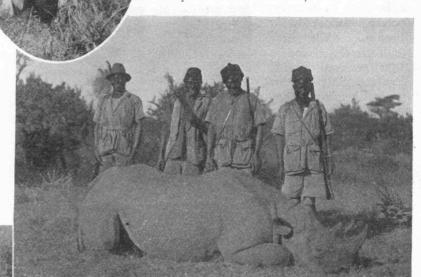
TEBULOUS but nevertheless active is the organization at the Institute known as the Society of Arts. Yearly, since 1910, under its auspices, free popular experimental science lectures have been given for the general public and for high school students. On December 10, 11, 12 (each lecture is given on Friday, Saturday and Sunday), armed with tubes and screens, Professor John T. Norton, '18, delivered the first of the 1926-27 series. His title was "X-rays and Their Applications." To the lay audiences he explained by a story of their development, by diagrams and by demonstration, the facts about radiant energy. It was just thirty

delivered in similar manner, are "Invisible Light and Its Effects" (January 14, 15, 16), by Donald C. Stockbarger, '19, Instructor in Physics; "Engineering—the Foundation of Modern Civilization" (February 11, 12, 13), by Professor Charles M. Spofford, '93, Head of the Department of Civil and Sanitary Engineering; "Some Chemical Discoveries and Their Effect on Modern Life" (March 11, 12, 13), by James F. Norris, Professor of Organic Chemistry, who retired on December 31 from the Presidency of the American Chemical Society.

In the Lead

FORTY-FOUR students, or forty-six per cent, of the ninety-six aëronautical engineering candidates for a degree in the United States are enrolled at the Institute. Out of a total of twenty-six graduate students in this field, thirteen are working here.

These comparative statistics, based upon a report issued by the Daniel Guggenheim Fund, Inc., are made more impressive by the fact that the Institute's undergraduate course has been established only since last March 17. What evidence



(All photographs © 1926, by George Eastman) FROM MR. EASTMAN'S KODAK

Always during the African Big Game Hunt from which Mr. Eastman returned in September (see The Technology Review for November, 1926), there was a picture ahead. At the top of the page: Natives listening to a phonograph for the first time. Oval: A thirty-inch eland, killed by the party, held plough-fashion. Above: This rhinoceros, essaying a Marne drive at a Ciné-Kodak, was felled a little short of his goal. After life's fitful fever, he reclines gracefully. To the left: The fourth lion killed by Mr. Eastman, this one in Tanganyika.

years ago that same week when his father, Professor Charles L. Norton, '93, now Head of the Department of Physics, delivered to the Society of Arts a lecture announcing the then recent discovery of X-rays by Röntgen. Lectures to come, pointed toward the same end and

is available, however, points to the conclusion that training in aëronautics was first given at Technology, commencing about fifteen years ago.

Those students electing aëronautical subjects at Technology but not taking Course XVI number fiftyone; nearly thirty-two per cent of the total elective aëronautical students in American colleges. Nine institutions have departments of aëronautical engineering or chairs of aëronautics; five offer courses leading to a degree; eight are carrying on organized research. The Institute is included in all of these classifications.

Harpsichord

USIC expounded, historically and categorically set forth, and illustratively played, is the content of a series of three lecture-concerts given by Arthur Whiting, under the auspices of the Corporation, to the Institute staff, Faculty and students. The program of the initial concert on December 14 in which the assisting artists were George Barrère, Flute, Michael de Stefano, Violin, and Alberico Guido, Violoncello, with Mr. Whiting at the Harpsichord, covered seventeenth and eighteenth century chamber music.

Mr. Whiting, visitor yearly at Harvard, Yale, Princeton, and Technology, talks informingly and lucidly of the music he brings with him to these places; then, assisted by other musicians, he plays it.

The Bureau's Twenty-Fifth

RETURNING momentarily to the United States
Bureau of Standards from whence he came to be

President of the Institute, President Samuel W. Stratton was the guest of honor at a dinner in Washington on December 4, to mark the twenty-fifth anniversary of an institution in the upbuilding of which he, as first director, played the leading part.

In an address on the development of the Bureau of Standards, Herbert Hoover, Secretary of Commerce, paid high tribute to the pioneering work of President Stratton. And it was at the anniversary dinner that President Stratton again met many of those who under his direction had a part in the far-reaching work which marked the growth of the Bureau.

George K. Burgess, '96, present Director of the



VISITOR

Dr. Theodor von Karman, Director of the Aërodynamic Institute of Aachen, Germany, distinguished in the field of mathematical aërodynamics, who delivered a series of lectures at the Institute during the fourth week of November

Bureau of Standards, under whose able leadership the work of the institution is steadily progressing, helped to give an all-Technology flavor to the repast.

When Dr. Stratton became head of the Bureau in 1901 it had fourteen employees. When he left it in 1923 it had no less than 800. Much there was at this 1926 dinner to emphasize the part which Dr. Stratton, Director for twenty-two years, had played in so remarkable a growth.



© Harris and Ewing
ALDRED LECTURER

Howard Coonley, President of the Walworth Company, on December 17 delivered to seniors and staff the first Aldred lecture of the present academic year. His subject was "The New Science of Business"

The 123d Meeting

shadowy presences to the 123d meeting of the Alumni Council, held on November 29. The meeting place was the new University Club at 40 Trinity Place, Boston, and within its brand-new and severely rectangular interior it is hard to realize that the space now displaced by front desks, high speed elevators and private dining rooms was once occupied by the old Technology Union. But it is so, and even so unsentimental a character as Orville B. Denison, '11, Secretary-Treasurer, emphasized it.

Whether for this reason, whether because of a pre-New Year's Resolution, or even (it is not impossible) because the Council thought it might be privileged to hear some inside comment on a recent scandal, the attendance was the highest on record in the eighteen years of the Council's existence. Once, in November, 1925, numbers surpassed this, but only because the Faculty Club met jointly. At this

recent meeting eighty-seven members and guests were present—ten more than graced the 100th Festival in October, 1923.

The evening began slowly and in the opening passages there was little to predict the fine frenzy of the

close. Mr. Denison read his usual report, giving among other things the important intelligence that paid-up members as of that date were 499 ahead of the corresponding date a year ago.

After the disposal of a few auxiliary matters, Alfred E. Burton, former Dean and now Director of the Alumni Dormitory Fund Campaign, reported progress but was necessarily noncommittal and avoided names or figures. Definite information will, it is promised, follow later.

The annual report of the Advisory Council on Tech Show was read and accepted. The report contained official notification to the Council of news published in The Review last month of the resignation of Alexander Macomber, '07, as Chairman of the Advisory Council. It was voted on the motion of Allan W. Rowe, '01, that the Council go on record with an expression of the sincere appreciation which it felt for the extraordinarily faithful and effec-

There followed the morsel for which perhaps more than one Councilman hungered. It came in the form of a recital by Dean Henry P. Talbot, '85, of the events of the night before Field Day, upon which further discussion here is unnecessary. (See The Technology Review for December, 1926). Dean Talbot stressed the extraordinary value of the work of the student Investigating Committee and was of the opinion that the untangling of the skein of events would have been difficult, if not impossible, had it not been for the independent investigations made by the undergraduates themselves. At the conclusion of his remarks it was voted that the Council express to the Institute Committee its gratification and thanks for the work done.

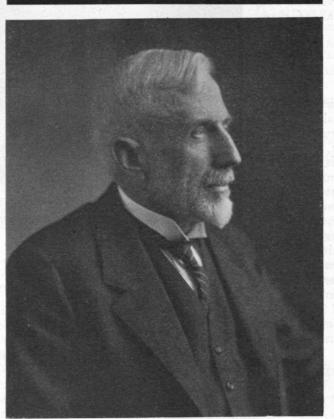
The meeting obviously gathered spirit from this point. Councilmen Frank P. Scully, '15, Paul D. Sheeline, '19, and Andrew Fisher, '05, suddenly sprang to their feet with the dictum that the establishment of intercollegiate football would prove a soothing panacea to all the ills the Institute might continue to be heir to. For the moment they remained uncontradicted.

Charles H. Chatfield, '14, Associate Professor of Aëronautical Engineering, and, at the present time, acting as Head of the Department in the absence of Edward P. Warner, '17, spoke at some length of the establishment of Aëronautical Engineering as a separate

course at the Institute. (See page 152). More briefly, Professors Edward F. Miller, '86, and Samuel C. Prescott, '94, described new special courses; one in Military Engineering and the other in pre-medical instruction. Professor Prescott, then throwing off the rôle of Head of the Department of Biology and Public Health and assuming that of the Vice President of the Alumni Association, announced from the chair that because of the unavoidable absence of Professor Ross F. Tucker, '92, a discussion of the new course in Building Construction would necessarily be postponed.

Elliott R. Barker, '98, was responsible for the grand climax of the evening. In the course of an oration of some twenty minutes he voiced a number of beliefs: one to the effect that the Alumni Council spent too much time in mutual back-patting and too little in the constructive criticism for which it was designed on

ting and too little in the constructive criticism for which it was designed; another that the personnel of the Institute Faculty, in a number of respects which he could particularize but would not, might be considerably improved; another that the teaching methods of the Institute might be considerably renovated with profit to all; another that the Institute was to a great degree over-exact in the demands made upon its students; another that the Department of English and History might, so far as he was concerned, take a running jump into the vasty deeps of space. After that, obviously, there was nothing for the Council to do save adjourn. This it did with consummate grace.



FORRIS JEWETT MOORE

For more than thirty years teacher of organic chemistry at the Institute, he died on November 20. See page 150

Luncheons Redivivus

or SINCE the disintegration of the old Technology Club of Boston, have Institute men, resident within Technology's demesne, had any formally acknowledged opportunity to meet together save at the Annual Dinner of the Alumni Association each January. Alumni in Atlanta, Chicago, Philadelphia, Denver, San Francisco, or where-not—

even in Shanghai and Tokyo, make a regular practice of holding stated meetings, usually lunches, at regular intervals. Not so Boston. Not so, that is, until the action of the Committee on Assemblies, following the November meeting of the Alumni Council, which ratified a recommendation which the Council itself had made, and reëstablished the weekly lunch in all its ancient splendor.

Hereafter, from 12:30 to 2:00 p. m. on every Tuesday in the year, a table will be reserved for Technology Alumni in the Main Dining Room of the new University Club at 40 Trinity Place, Boston. The Boston alumnus will no longer be at a disadvantage, through residence too close to the Institute, in meeting his fellow man. The revival started auspiciously on

December 21.

In accord with a fervent motion in the Council, by Allan W. Rowe, '01, that careful provision be made for extending all due hospitality and courtesy to any out-of-town Alumni who may attend these gatherings, a group of "Hospitality Leaders" has been created. Although that quality of hospitality which may be "lead" is perhaps a trifle vague, the fact does remain that from the first to the fourth Tuesdays of the month the Messrs. Frank A. Bourne, '95; Edward L. Moreland, '07; George B. Glidden, '93; and Carl W. Gram, '09, will, in rotation, lead the hospitality. Orville B. Denison, '11, Secretary-Treasurer, is general leader for all luncheons, and, says an ominous footnote to the report of the Committee on Assemblies, "On any fifth Tuesdays Mr. Denison can act alone." Research reveals the

interesting intelligence that there are four fifth Tuesdays in 1927—in March, May, August and November. The Review understands that police reserves have already been detailed to handle the pressing throngs who will, on these four occasions, be accorded the rare privilege of seeing

Mr. Denison act alone.

Sun Doctor

HRONIC insomnia plus an ability to travel 25,000 miles hours twenty-four every would be necessary traits of Charles G. Abbot, '94, Assistant Secretary of the Smithsonian Institution and Director of its Astrophysical Laboratory, if he were to keep constant tab on the subject of his lifework. For over thirty years, beginning under Professor Samuel P. Langley, he has been checking-up on the sun as best he could from his headquarters at Washington. But the sun isn't always able to penetrate the murky cloudiness hovering over the nation's capitol and so this routine has been varied by frequent data-collecting trips to points of greater atmospheric clarity such as the observatory established

in 1905 on Mt. Wilson near Pasadena, Calif. There he found much in common with George E. Hale, '90, and Arthur A. Noyes, '86, former Acting-President of Technology, and the man to whose influence Dr. Abbot attributes his decision to enter upon what has proved to be such a highly distinguished scientific career.

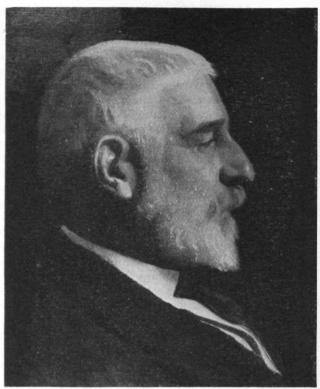
Later Dr. Abbot took his apparatus up Mt. Whitney in California and checked the Mt. Wilson data. Then came the opening of a station on Mt. Montezuma in the foothills of the Andes in Chile. Interspersed were many special trips like the one to La Paz, Bolivia, to view the eclipse of 1919. During the past year and a half, Dr. Abbot has been on a journey, financed by the National Geographic Society, which is interested in the problem of weather as dependent on the variation of the sun. He has sought the best place in the Eastern Hemisphere to locate a solar observatory to coöperate with those already running in North and South America. How he chose a spot on Mt. Brukkaros on the plateau of Southwest Africa 500 miles north of Cape Town and 200 miles from the Atlantic was duly recorded in The Review for last May.

It was to tell of his travels in search of this station (he investigated sites in Algeria, Egypt, on Mt. Sinai, near Quetta in Baluchistan and elsewhere before landing at Durban in Natal to seek an African location); to give his audiences an account of how the Brukkaros station, when opened, will complete the world-wide chain for observing the sun's activities and thus make possible better weather forecasting; to expound the rewards of a life devoted to scientific research; to acknowledge his



SANTA SOPHIA

"One of the great things of all time", from a reproduction on copper by the skillful etching point of Frank Brangwyn. Plans for reconstructing the church, in accord with plans of Professor William Emerson, Head of the Department of Architecture, are being considered as recorded on page 157



GEORGE C. WALES, '89, ETCHER

From a watercolor by William M. Paxton. Mr. Wales is one of the most distinguished of American etchers. See page 157

debt to Alma Mater — that Dr. Abbot delivered two lectures at the Institute under the auspices of the Department of Physics on November 19 and 22 and also spoke before the Faculty Club at luncheon on the latter day. The Review hopes to publish in early issues a series of two articles by Dr. Abbot based on these lectures.

Finxed?

NWARRANTED hard luck of a character impossible to forsee has twice wrecked the nonstop flight plans of Lieutenant Byron J. Connell, S. M., '25, who, on the most recent occasion, was reported lost in the Caribbean fourteen and a half hours. As commander of the naval seaplane PN-10 No. 1 he took off from Hampton Roads at twilight on the Tuesday before Thanksgiving headed for Colon, Panama, only to be forced down the following morning by reason of a broken connecting rod several hundred miles south of the Isle of Pines.

Lieutenant Connell has now met with mishap, through no fault of his own, while traversing two oceans. As navigator of the PN-9 No. 1 he accompanied the late Commander John Rodgers, who, in September, 1925, led an expedition across the Pacific which brought him and his crew down a record distance of 1,841 miles from the starting point to drift nine days before a submarine found them off the Island of Kauai in the Hawaiian Islands. (See "The Flight that Failed" in The Technology Review for November, 1925.)

The companion plane on the Panama flight, the PN-10 No. 2, also had difficulties, ran out of lubricating

oil and was forced down after covering 1,186 miles (the PN-10 No. 1 made 1,448 miles) but when this deficiency had been remedied she was able to proceed and reached Coco Solo, Canal Zone, by dinner-time on November 26 However, the injury to the PN-10 No. 1 was such that she had to be towed into Guantanamo by the U. S. S. Cincinnati to await the transport, Vega, despatched from Philadelphia with a new motor. Lieutenant Connell begged to be allowed to complete his flight but was ordered to pack the plane on the transport and proceed to San Diego via Colon. Further tests on long-sustained flights are to be conducted in Californian waters.

Ashokan Water-Tight

HAT the Ashokan Reservoir, source of three-fourths of New York City's water, was leaking was the theory advanced by the New York Herald-Tribune as recorded in the last issue of The Review. Recorded also was the feat of J. Waldo Smith, '86, in constructing this water supply system and the fact that he had been asked by the Board of Water Supply to come from his retirement to make an investigation of the alleged leaky reservoir. His report, together with that of geologist Charles P. Berkely of Columbia University, has now been made public.

The report declares that there is no leakage, that the low water in the reservoir is due chiefly to the fact that thirty per cent more water has been drawn from it to meet increasing demands "than it was designed to give or that anyone expected that it could continuously supply." Lack of rain was also given as a cause for the



"THE W. I. TRADE"
From an etching by George C. Wales, '89

low water. "The plain fact is that the demand of New York City now equals and sometimes has exceeded the

available supply.'

Mr. Smith calls to the attention of Mayor Walker an ominous water shortage in the offing for New York. "I am certain that, even with the full use of all the supplies now available and such additions as may be made, for emergency purposes, by pumping from Long Island or other sources, and with all the economy in the use of water that may be practiced, the people of the city will suffer the hardships of an insufficient supply before any additional water can be made available. This will require eight or ten years from the time construction work begins. The plans are now before you for consideration.

Both are essential to safeguard the continuity and safety of the water

supply of the city."

Santa Sophia

ESTORATION of "that supreme masterpiece of Byzantine art," the Church of Santa Sophia in Constantinople, is a proposal reported to the American Institute of Architects by its Committee on Foreign Relations of which Professor William Emerson, Head of the Department of Architecture at Technology, is chairman.

The preliminary report of the committee has been prepared upon the basis of an investigation of the Turkish political situation in which, among others, the heads of foreign mission boards having interests in the Near East were consulted. There seems no possibility, according to Professor Emerson, of making the church into a museum, but there appears to be reason to believe that Mustapha Kemal's government might be expected to become in-

Institute of Architects is able to advance for the restoration of the building, which can ill be spared from the list of authentic structures of its period available for student

terested in such measures as the

research.

Etcher of the Sea

EORGE C. WALES, '89, by vocation an architect, by avocation an etcher, finds himself successful in the former and close to fame in the latter. His etchings of ships have assumed first rank in their field since he boldly conducted a one-man showing in 1922.

Again last December at Goodspeed's in Boston his work has been on exhibition. His etchings are characterized by their sheer beauty as pictures, their qualities as etchings, and their accuracy of ship details. There is no doubt that his bars and braces are just right and that the sails are furled ship-shapely. Famous among his work is "The W. I. Trade," "Cutting In," "Clipper Ship Stagbound," "American Packet Ship."

His etchings numbering nearly a hundred have been exhibited in many places over the country. They are to be found in the British and the Victoria and Albert Museums in London and the Museum at Stravanger in Norway as well as in some dozen other foreign and

domestic galleries.

Twenty-fibe Bears ago in The Review

Issue: January, 1902

THE leading article began, "Few people realize that there is now being built across the Charles River a bridge which will be not only one of the finest structures of its kind in this country, but will be a rival of any in the Old World." Technology men mentioned are William Jackson, '68, chief engineer; Edmund M. Wheelwright, '75, architect; and James W. Rollins, '78, in charge of the foundation work.

"The new bridge," continued the article, "replaces the old West Boston Bridge, a wooden structure first built in 1792-93, which for some time has been inadequate for highway travel. This old bridge was made famous by Longfellow's poem, 'The Bridge,' written

in 1845. . . . "

Corporation Notes

T the 291st meeting on December 11, 1901, were presented the reports of the President and Treasurer. Said the former, "Two years ago there were less than 1200 students in the Institute; today there are more than 1400." Appointments at the meeting included Edward E. Bugbee, '00, as Assistant in Mining Engineering.

Faculty Notes

AFTER due deliberation on the "Matter of the Christmas Vacation" the Faculty had tried the "plan of suspending exercises at Thanksgiving for one day only, and at Christmas for the entire week. It is probable that this plan will be made permanent." It was announced that graduate work was increasing, a total of eleven "graduate were working for the master's scholars" degree. Entrance requirements were being revised "by including elementary French and elementary German, which are at present alternative." Another important matter of current Faculty business was a determination of the Institute's attitude toward the principle of college coöperation in the conduct of entrance examinations. The "College Board" had just been established and it seemed "at the moment probable that the Institute would accept the invitation [to join] but with no intention of surrendering full control of its Boston examinations.'

Ten Dears Ago in The Review

Issue: January, 1917

DECADE ago The Review Editors be-lieved that two major topics were of prime interest to the subscribers. These were, first: the equipment of the new plant and the prosperity of the Institute; second: Technology's part in the great war which loomed ahead. During the previous summer the removal to the "new buildings" following their dedication on June 14, 1916, had been accomplished.

TEADING ARTICLE: A description of "The New Engineering Laboratories" by Professor Edward F. Miller, '86, then as now Head of the Department of Mechanical Engineering.

The engineering laboratories in the new Technology cover an area, exclusive of offices and corridors, of about 70,000 square

feet. . . .

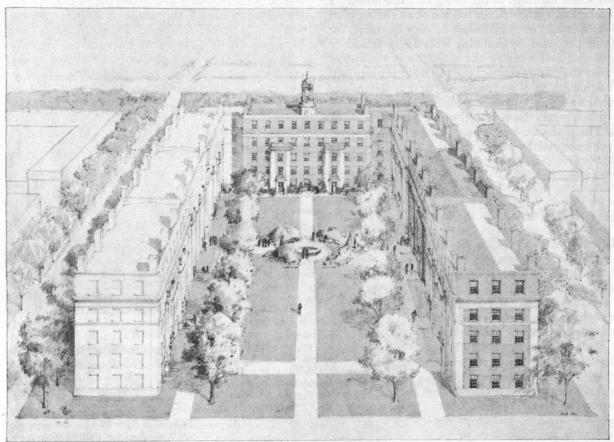
REGISTRATION figures for '916-17 showed a total of 1,957, of which 792 were new men and 369 in the freshman class. "The total number of men at the Institute who have attended another college before coming here is 588, or 30 per cent of the entire registration. . . . The total number of graduates from other colleges enrolled at the Institute is 327, or 16.7 per cent of the total registration.

ECHNOLOGY'S ability to render aid to the Nation should war come was being considered by the Corporation, the Faculty, and the Alumni Council. A joint committee of Corporation, Faculty and Alumni with Dr. Maclaurin as chairman had been formed at the request President Wilson transmitted through the National Research Council, and had met on November 18, 1916.

**EXACTLY one month later, on December 18, the Alumni Council heard the report from its Preliminary Committee on the Development of Technology Resources for Peace and War, which it had created by vote on October 30. Isaac W. Litchfield, '85, was chairman of this Committee and its members were: James P. Munroe, '82; Raymond B. Price, '94; and Merton L. Emerson, '04.

"The Committee . . . believes that the Alumni Association can be of much service to the National Government at this time.'

The New Dormitories: A Report of Progress



Rendering by F. A. Burton

CLOSE AND CLOSER TO REALITY

Here you see the goal toward which the campaign of the Dormitory Fund Committee, under the leadership of Former Dean Burton, aims. To flank and surround the existing Class of 1893 unit must be five others, to complete these plans of Welles Bosworth, '89, architect. How soon will brick and mortar replace mere pencil strokes?

A Message from Dean Burton

THE construction of a new Dormitory Quadrangle is, I feel, assured; for the response that I have received from Alumni, old and young, has been unmistakably in favor of the proposition. The older classes are coming through finely.

My efforts now are especially directed to the engineers and managers who have been using the technical training of our graduates in the development of their industries. These men are the ones who appreciate the training of the Massachusetts Institute of Technology, and with a few exceptions, these men also see the benefit that would come to these students if in their under-graduate life they were more closely associated with their fellows.

were more closely associated with their fellows.

The so-called "social life" of our older colleges and universities has often been made a subject for humorous comment, but that this life has some real educational value cannot be denied by any serious

observer of our young collegians. Technical and scientific students at the Massachusetts Institute of Technology, who have much more need for such association in their student days, have had little if any opportunity for such community life. It is not surprising then that many young technical graduates feel themselves handicapped by a certain social diffidence and lack of confidence in themselves when meeting the outside world.

I trust that by the date of the Annual Dinner your President will have an interesting and substantial report to make to the Alumni with reference to this new dormitory scheme that he has had so much at

agual E. Button



At the charge: Spanish Native Troops in Morocco

Photo by Times Wide World

World Peace While You Wait

The substance of an address upon a vital international topic, delivered to the Faculty Club

AM asked to say in four thousand words all that can be said about the situation of the world

By ALBERT BUSHNELL HART Professor-Emeritus of Government, Harvard University

Therefore, I feel a little more confident than when I first stood up of being able to leave your minds in a state of absolute repose.

Peace, has now come to seem, not simply to pacifists or to peace societies but to statesmen and to nations,

if not the normal condition of mankind, at least a condition toward which we ought to approach. That is really an immense gain, because for centuries in Europe and in America it has been believed that wars were inevitable and were in a way helpful: that you could not produce any permanent result in the alteration of the world without a war.

periodical noonday luncheons, fol-

lowed by speeches and discussions.

It is perfectly true that the apparent intent of most responsible statesmen throughout the world is, when a difficulty occurs, to settle it by discussion, by mutual concessions, to settle it in peace. Beyond that, however, the ambitions and the hopes of mankind have very far advanced. We are now trying to create a permanent system by which the approaches to war may be guarded and by which the difficulties which eventually result in war shall be averted. That conception depends upon the theory that most wars are unnecessary and that they cost a great deal more than they are worth. Our own experience in the last few years has been that the victors lose as much as the van-

with reference to a general, an honorable and a perpetual peace. It is easy with a dictionary to form phrases which will describe that happy result. In fact, to the minds of a great many excellent people the result has

already been achieved. "We are now, thank God, beyond the era of wars and making of wars. We have passed through a terrific crisis and, though the world is still very much disturbed, we have, first of all, a general sentiment of beneficence throughout the world. In the second place, we have for the first time something like adequate machinery for international exchanges of opinion, a machinery which may be depended upon to prevent crises. That machinery is duplicated, is assisted, by another mechanism, the World Court." The idea is apparently that if you miss fire on one engine, maybe you can start the other. To the minds of a great many people, Arcadia, if not the millenium, has been reached.

The evidence is multitude, of periodicals, of books, and particularly of noonday lectures. This institution in which I am participating today is not completely American, but I think it contains a basic American idea — that you can settle all the affairs of any government and that you can adjust all the controversies of nations by

THIS article and the one by Edward S. Burdell, '20, which begins on Page 164, present certain opinions on the present and future in Europe. Professor Hart's bitherto unpublished address was delivered at almost the exact time when Marshal Pilsudski's troops were fighting in the streets of Warsaw. Where he refers to bis experiences of "last summer" be means that of 1925.

Mr. Burdell reached Warsaw shortly after the completion of the Pilsudski coup. His audience with Mussolini took place in October, 1925. Between these two occurrences be spent several weeks in Mexico last spring, and readers of The Review will remember bis article entitled, "Mexican Chaos and American Responsibility," published in the May number, in the course of which he foretold part of what bas since come to pass south of the Rio Grande.



P. & A. Photo

TO DECIDE THE NEXT WAR?

A portion of what Professor Hart believes may be a black army of one million men with which France may strive to settle the next war

quished, and, therefore, that war is a poor method of achieving what you desire. That being the case, we naturally look for the development of a peace system. We are giving up this idea that the first thing to do is to raise an army or to declare war or threaten war. We try now to reach an understanding.

If we are going to discuss means of arriving at a permanent peace system we must understand our own point of view. I have some very excellent friends, men whose judgment, whose ability, I highly value, to whom I can apply no other term than that of League Addicts. It seems to me their minds are filled, first with the illusions caused by the drug and, second, by the belief that there is something beneficent about it, that if you take enough of the drug, if you have a sufficient quantity of the League of Nations medicine, that that is going to save the world. It is a very ungracious task to discuss such matters if you are not an addict yourself.

Charles Francis Adams once remarked that he had never been so happy as when he had been writing a book on the manners and customs of the Puritans in the town in which he had grown up, in Quincy. He said he had been destroying people's illusions. So may I, if not destroy, at least impair, some of the illusions which people hold in regard to peace.

In the first place, the whole idea which people hold as to peace depends upon supposed conditions. The first of those is the equality of nations. Any one who has made the slightest study of International Law is aware that that is the fundamental. We are constantly thrown, in discussions of international relations, upon the parallel of combinations of communities or individuals. Why not a community of sixty-five nations, when we have a community of one hundred and fifteen million people who are living in peace and quietitude?

At the very outset that supposition of equality must be examined. In the first place, the idea that sixty-five nations may live in accord because sixty-five million people live in accord is not so. The two ideas are not commensurable. Suppose, for instance, that a community were to be formed in which there were sixty-five persons: in which you and I and Henry Ford and John D. Rockefeller and Judge Gary were members. It is perfectly certain that if there were five of those grandees the other sixty would never succeed permanently in forcing their judgment and their will upon those persons, because the five have immensely greater power than the sixty. Then why can you live in a community of sixty-five millions? Because the multitude of units overcomes the influence of the few. Sixty people could not stand against the five, but sixty thousand might.

In the next place, we Americans do not believe for one moment in the doctrine of the equality of nations, and it is perfectly useless for us to pretend that we do. But suppose, in the first place, we accept the practical division of nations into groups of great nations. How many are there? Great Britain, France, Germany, Russia,

Italy, China, Japan, the United States — that is eight, and one is doubtful as a great power. Those nations have between half and two thirds of the human race within their dominion. They have nearly all the aggregations of educated men, of scientific men. That is, they not only outweigh the rest of the world, but they very terribly outweigh it. Allowance for the difference is made in the League of Nations, for although in the Assembly every power down to Paraguay has one representative and a vote and a voice, in the Council the principle of great nations is recognized. Here is the real hitch. The real difficulty is the endeavor of second-class powers, (second, that is, in power and wealth), like Brazil and Spain and Poland, to be placed in a position where they will have each one a vote equivalent to that of the British Empire or the United States of America, if we were a member, or the Russian Empire, if it should enter the League.

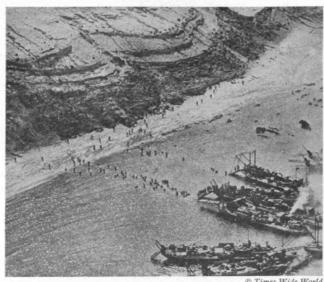
Furthermore, in the machinery of the League, the Assembly is weak and the Council is strong. I took the pains not long ago to run through everything that had been done by the League of Nations, every vote that had ever been taken, and I found that with the exception of two unimportant matters everything that was decided had been decided by the Council. In the very machinery of the League itself there is a recognition that great and powerful nations shall not be placed in a position in which they can be outvoted by any combination of weak nations.

Then, again, we believe all nations are equal. Well, do you believe Panama is equal to the United States or Haiti or Santo Domingo or Cuba or Honduras or Nicaragua? Do vou believe Paraguay or Uruguay is equal to the United States? Do you believe that Switzerland or Siam or Afghanistan is equal to the United States? No. That is to say, the American people and the American government do not recognize the equality of nations, of even near neighbors. Here is a weak one called Mexico. Twice within a few years American forces were directed to march into Mexico. Of course, if a Mexican army had marched eight hundred miles into Texas or if a Mexican navy had taken Galveston and held it for months, that would have been war. But, when the United States does the same thing, that is not war, that is military intervention, that is just protection of the people of the United States. I am not going to criticize the government of the United States for any attitude that it takes on those subjects. My point is that we habitually take that attitude and it is in our minds.

Another great difficulty is the race difficulty. We do not hold the races within our own borders to be equal. More than ten million negroes are under legal disabilities, and elsewhere they are under social disabilities. They are not recognized on the same footing with the



SENGALESE TROOPS ON THE MARCH



DEBARKATION

© Times Wide World

Spanish military forces debarking at the Bay of Albucemas, the "Spanish Dardanelles", to fight the Riffs

white. The Indians are not recognized. Mexicans who are being imported in such numbers in order to sustain business, especially in the mining and other similar industries of the United States, we do not treat as equals. Furthermore, we do not think that, politically speaking, the Japanese or the Chinese, with their millions of population, with their centuries of civilization, are our equals. We do not want them brought into this country; we do not wish to give them a status. To my mind the real rock-bottom reason is that they are too strong, they are too capable, that we think it is not good for our welfare to have a community of one or two or five million Japanese or Chinese in the United States.

The Japanese feel that fact keenly, and they insist on the equality of races. If a Czechoslovakian can be admitted as an immigrant to the United States they believe that it is an affront that a Japanese cannot be admitted. Of course, the Japanese are willing to accept the quota, but if we put them on an equality under the quota system and then should abandon the quota system, then they are on equal footing in whatever system may be adopted.

In the next place, the world is still full of unsolved problems. The great difficulty with the peace in Paris was that it assumed that at last a state of crystallization had been reached, that the world was adjusted once for all, that the boundaries between nations were finally prescribed and laid down, and that those boundaries were not to be transgressed. That, of course, was one of the reasons for the failure of the treaty in the Senate: the fact that apparently it committed the United States to maintain, especially through the League of Nations, these boundaries described by the treaty. We as Nation C were to use our military force in order to make sure that Nations A and B do not cross each other's boundaries and seize each other's territories.

But there is a great deal of territory the destiny of which is not yet arranged. Alsace-Lorraine, unless Germany were to have a decided preponderance of force, would be likely to remain within France indefinitely. Who can think, however, that the status of the Tyrol is a permanent status? For a thousand years the name of Italy was never applied to that region. The Italians finally took possession of it. It has a German-speaking population, a population that hates the Italians, a population which once rose a little more than a hundred years ago and made a gallant fight against a German sovereign, though practically against the French. In Europe there are many similar unsettled questions of boundary.

And there are a great many unsettled questions in the United States as to the future of other powers. The United States has taken upon itself to decide the destinies of at least five of our Latin-American neighbors. Panama is no more an independent or equal nation than Middlesex County is independent of the Commonwealth of Massachusetts or than the Commonwealth of Massachusetts is independent of the United States. Everybody knows that the major decisions with regard to the action of that government, so far as that action impinges on that of the United States, are made in Washington.

Another very serious difficulty in the way of peace is that every system, every organization for peace, is based upon the presumption that all nations who are partners, at least, in that system, mean well by each other; that is, that all nations are "good" nations. But there are several bad nations in the world. I am sorry to say that at present a considerable number of our friends in Europe look upon the United States as a bad, an aggressive and a grasping nation; a nation of plutocrats who are trying to squeeze the last dollar out of the European taxpayer when his own government cannot squeeze it for its own purposes. The United States then, if it is to enter into a world union, must enter with a considerable number of doubtful brethren in the family.

For instance, nothing can be more certain than that the present attitude of the despot of Italy is one highly unfavorable to peace. He talks about restoring the Roman Empire. Is he going to restore Hispania or Britannia or the Mediterranean Colonies, possibly? First, where is he going to stretch? He is going to stretch into North Africa, into Asia Minor, particularly into Syria, and that region. And there immediately the Italians cross the most sacred interests of France and of Great Britain. We are not going to have a state of universal peace while one European power announces the practical intention of attacking the interests of its most powerful neighbors when it gets the chance, in order to restore the Roman Empire.

Again, there is Russia. What hope is there of restoring world peace when we have a nation there larger in area than the United States, larger in population, a country resembling the United States in many respects, a country in which there is a great deal of area to be developed, rich in resources, both in Russia and in Siberia, a country capable of immense expansion of wealth and population, a country having the greatest area in the world, a country having its colonies, not removed at a distance, but right next to it. There is no permanent peace possible until Russian problems are adjusted. It is as though you were to study the Solar system and explain it while leaving out the planet Jupiter and disregarding the

perturbations of that mass of matter and saying that we will calculate the orbits of all the other planets inde-

pendently.

Again, the world is not settled with regard to its colonial relations. Everybody, of course, is in the wrong on that subject except the United States. We have a colony (we don't like to use the word colony, but it is a colony) of over ten million people, a considerable area, an area of about the same size as Japan, a discontented people; we do not know what to do with it.

Great Britain has a population of twenty millions of discontented East Indians; she does not know what to do with them. Apparently India might break up tomorrow, except that in that case the Moslems, one-quarter of the population, would be put to massacre by the other three-quarters. Then, there is Africa. It does not look as though Mr. Garvey could carry enough

negroes from the United States to Africa to contend with Europe in that

continent.

To my mind one of the most terrible obstacles in the way of world peace is the ambition of France to fight the next European war with negro troops. I was in Germany last summer and in Hamburg I happened to sit at the table next to a prison official. He said: "We have three Frenchmen in our prison; two are black men and one is white. The two blacks say the white was their officer.' "How did they get there?" "They are deserters from the French Army." I asked him how many there were all together and he said, "We

find them all over the borders of Germany. They have committed no crime, but we can't let them wander around and so we arrest them, and we have to feed them."
"How many are there?" "Oh, about thirty thousand."

I knew that was perfectly impossible and I thought he meant about three hundred. I took the pains to have that question referred to a friend in France and he said, "No, nothing of the kind. There are not over six thousand." Six thousand deserters from the black army would rather go to the Germans than live with the French. Gentlemen, that is one of the most serious questions in the world — and the League of Nations does nothing whatever about it. It is plainly the intention of the French to build up a black army of a million men with which to decide the next war. I will not say we are in a position to protest, but the world is not yet safe for democracy under those conditions.

Finally, we cannot depend upon a permanent peace with the machinery that now exists. The League of Nations is a beneficent institution. I visited its habitat last summer and I was greatly struck with the growth of the system and the extraordinary convenience of the

universal registry of treaties. It is one of the best means of international intelligence and for the settling of small questions that the world has ever known. But, recent events have shown that that body is perfectly incapable of dealing with a great crisis in which there are one or two absolutely determined great powers who are in collision and neither of whom will yield. And it must be so always. The United States will never enter into a Pan-American union where we, with our hundred and fifteen millions, are likely to be outvoted by the twenty other American states with their seventyfive millions. It is just so with every great power in the world. No one expects that he is going to enter into a system in which the combined votes of small states will outweigh the majesty and power and significance of the great states.

But, you say, we are going to have a World Court.

We are committed if other nations accept us. The difficulty with the World Court is, first of all, that it acts on cases. I had the great privilege last summer of spending part of a day with Max Huber, the president of the World Court, a great jurist, a great man, singularly impressive in the moderation of his views. He said that the World Court was not going to reach out for disputes to settle, but that bye and bye its decisions might constitute a body of international law. A very great international advantage, that.

for disputes to settle, but that bye and bye its decisions might constitute a body of international law. A very great international I noticed an article recently, however, in favor of the World Court which said that if there had been a World Court in 1914, there never would have been a World War. Why, God bless you, there was a World Court established in 1899, and it is in existence yet. Professor James of the Harvard Law School is still one of the judges of that Court, and has never been relieved. It was formed in 1899. In 1900 there was a war in South Africa. No one appealed to that court. In 1904 and 1905, a war between Japan and Russia. No one appealed to that court. In 1910 and 1911, a war between Turkey and Italy; no appeal. In 1912, the first Balkan war. Nobody

I wish there might be peace, God knows, in our time. There cannot be peace, however, there is no machinery that can reach it while there are these terrific strains of nation, of race, of religion, of industrial interests, and particularly while two of the great countries of the world, Italy and Russia, are in a situation in which either one may apply the match at any moment to the powder magazine.

ever dreamed of appealing to the court. In 1913, the

second Balkan war, and nobody appealed. And in 1914,

the World War. Six wars in fourteen years, the Court

always sitting there as a tribunal, and with no result.

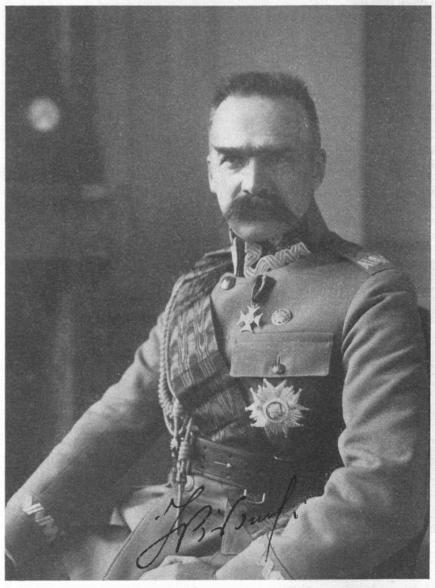


graphed simultaneously

BOMBS BURSTING

Abd-el-Krim's beadquarters at Checheuen being bombed and photo-

Mussolini and Pilsudski Versus Democracy



JOSEF PILSUDSKI, DICTATOR

Neither the physiognomy nor the chirography suggest a dictatorial manner as do the Italian Mussolini's. The Polish Dictator thus autographed a picture of himself for the author of the accompanying article

YEAR ago last October in Rome I had an audience with Benito Mussolini and spent several weeks studying Italian conditions in Milan, Florence, Pisa, and other cities. Eight months later I arrived in Warsaw, shortly after Josef Pilsudski, Europe's newest dictator, had marched his troops out of the west gate of the city on a "practice hike and routine manoeuvre," circled around to the northward, crossing the Vistula, and pounced upon the capital from the east at the head of a "military revolt" after a brief parley on the Poniatowski Bridge. Consequently I have had a somewhat unusual opportunity to form conclusions about these two men in whose hands rests, for good or ill, the working out of President Wilson's "Fourteen Points" so far as Italy and Poland are concerned. And that means, for all practical purposes, so far as all of western Europe is concerned.

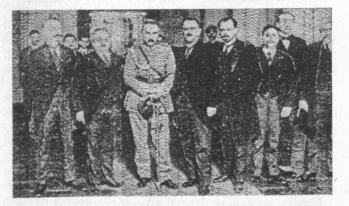
Pilsudski and Mussolini are two of the most interesting

A visitor to Rome probes the dictatorship of Mussolini, then moves to Warsaw just as Pilsudski forcibly takes charge of Poland

By EDWIN S. BURDELL, '20

and paradoxical outcroppings of the conflict which was to "make the world safe for democracy." Other dictators in Europe besides these two have been in power since 1918; Pangalos in Greece, for example, who was unceremoniously dumped out of office last August; Mustapha Kemal, Turkey's man on horseback, who affects occidental garb and hangs his opponents with equal seriousness; and the Spanish general for whom King Alfonso so gracefully acts as Yes-man. But the greatest of these are Pilsudski and Mussolini, and they have much in common. They are the most successful in the dictating job at this date of writing. Each possesses marked outstanding ability and fearlessness as to bodily harm, high personal popularity and distinct qualities of leadership; each came from classes oppressed by pre-war politics; each rode into office upon a high tide of dissatisfaction with existing conditions; each seems likely to hold his job for some time to come. Furthermore, each headsastateofprimeimportanceinany revision of European boundary lines or "spheres of influence," and, therefore, is not merely a local character.

But their problems are different and there is an essential distinction in the source of their power.



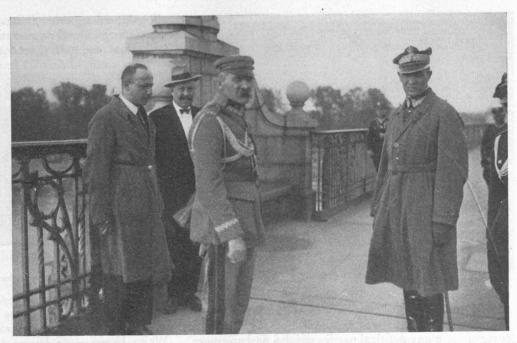
THE FIRST PILSUDSKI CABINET

After forcing Wojciechowski to abdicate as President, the Polish Dictator formed a new cabinet headed by Premier Charles Bartel. The radio photograph was made shortly after their inception in early summer Mussolini, the Man of Iron; Pilsudski, the Man of Steel. I mean that the sinews of strength of Mussolini and his principles lie in the iron and industry of the regenerated Italy, while the power behind Pilsudski is the persuasive argument of the steel bayonets of his personal following in the regular army of Poland. Mussolini, to be sure, depends upon his "Black Shirts" for swift and sudden revenge upon his enemies but the success which he has attained has been largely due to his ability to put the workshops, the railroads, and the ship yards back on their jobs; he has provided work and bread for Italian labor,

the ranks of which he but recently left. Hence I say he is the Man of Iron. Pilsudski is a soldier, pure and simple; he knows nothing of industry or commerce. He is a fighter, — the Man of Steel.

Mussolini's problems are largely economic. The

essential functions of government in Italy were intact even though the ministerial waverings of Orlando had brought on grave danger of Bolshevism, and a complete breakdown of industry, transportation and marketing. Private citizens were subjected to the most inexcusable interference and insolence; factories, even city governments, were temporarily seized by the communists. Suddenly this former shipwright of Livorno, a man hitherto looked upon as a dangerous radical, organized a sizable group of young men in the north of Italy. He called this organization Fascism, took for his emblem the axe and fasces of the ancient Roman power and, marching on Rome, seized the reins of government. He saved Italy from herself; put the people to work; made the railroads run, and pay dividends



RUBICON

The crossing of the Vistula was the crossing of the Rubicon for Pilsudski. As here shown, he paused a short while at the east end of the Bridge Poniatowski while conferences were held with the constitutional government

too; fostered agriculture in the south and manufacturing in Piedmont and Lombardy. He it was who put an end to the corrupt and ephemeral search for a communistic Utopia.

Pilsudski's problem was similar in that a wavering

cabinet and compromising politicians had allowed the new republic of Poland, born of the Treaty of Versailles, to get in a bad way economically and politically. While his coup may benefit the state industrially, its immediate value is to stabilize the functions of government during the period in which her war-torn citizens are reorganizing themselves into nationhood.

The Pole accomplished his aims with the steel of bayonets and a few well-drilled loyal adherents of the regular Polish Army, unlike Mussolini whose followers came from the ranks of the private citizenry. On the other hand, Pilsudski did not organize a super-secret government under the guise

of a political party.

When I arrived in Warsaw, streets were still torn up as a result of the hasty barriers erected to defend the capitol, and I saw a huge grave in which were laid the bodies of 500 citizens, killed during the attack on the city. Hundreds of broken windows on the main streets, patched with paper, and the stucco walls of the buildings peppered with the holes made by machine gun bullets evidenced the struggle that had taken place in the four days following May 8, the date of the conversation on the bridge between Josef Pilsudski and the then-President, Stanislaw Wojciechowski. On the other hand, Rome had met Mussolini with a



THE DESPOT OF ITALY

Mussolini in the safety of his kome not more
than two attempted-assassinations ago. Even
here he poses as somher, fierce, dictatorial

the head of the

Polish branch of a

large American

corporation who

was present when

it took place and heard the whole

Both parties re-

tired and the fight-

ing for the pos-

session of the city

during the course

After four days,

conversation.

commenced.

welcome fit for the reception of a conquering Caesar. The opinion was pretty generally held in Warsaw that Pilsudski felt there was much corruption and

weakness in the existing government. It was alleged that Witos, an agrarian demagogue, and other members of the former cabinet had enriched themselves in office. President Wojciechowski, who had shared exile many years prior to the war in company with Pilsudski, had ap-

peared to be trying to conciliate the bickerings of eight divergent parties but was accomplishing nothing. The curse of too many political parties weighs perhaps more heavily on Poland than on any other European democracy where this characteristic weakness inevitably prevails.

Pilsudski decided that the time for action had arrived early in May. As marshal of the armies, he had his troops marched out of the west gate of the city of Warsaw under the guise of a practice hike and routine manoeuvre. What actually happened was that he and his followers circled around north of Warsaw, crossed the Vistula and approached the capital from the suburb of Praga on the east bank. He was met by a courier of the constitutional government at about the middle of Poniatowski Bridge where Pilsudski was ordered to surrender and swear allegiance to the government. This he refused to do and in addition indulged in some remarks about the existing President, calling Wojcie-



THE STRIDE OF SUCCESS

Josef Pilsudski (in light uniform) shortly after the capitulation of Warsaw

chowski, among other things, "a flickering flame," and demanding a moral regeneration of the nation instead of individual and party sectionalism. The story of this was told me by



FUTILE FORTIFICATION

Machine gunners making ready upon the approach of the revolutionaries for defense of Warsaw, capital of Poland

of which about 500 were killed and twice as many wounded, Pilsudski was installed in the Belvedere Palace—the Polish White House—as Dictator of Poland, and Wojciechowski was a private citizen and politically impotent.

It is necessary to go behind the events of that week, to go back to the first partition of Poland in 1772, to understand the meaning of the Polish question. In that year Germany, Austria and Russia began carving up the Polish pie into thirds. The proud kingdom of Poland,



FEDERAL TANK
A whippet tank, from the French Army,
used by the Wojciechowski troops

founded about 840, the conqueror of the Teutonic Knights at Tannenberg in 1410, once the greatest power of eastern Europe, whose frontiers reached within less than 100 miles of Berlin on the west and Moscow on the east was reduced, in 1795, to an ineffectual vassal state whose complete demolition was accomplished when Kosciuszko, the confrère and friend of Washington, was defeated and captured by the Russians. Never in the history of the world has there been such an astonishing vitality of spirit or such a unity of national ideals as prevailed for a century and a quarter in the trisected nation of Poland. In spite of the most tempting subterfuges of scheming emperors and czars, the Poles never accepted a substitute for national independence.

The name of Josef Pilsudski has always been linked with those nationalistic aspirations during the thirty years he has been a commanding figure in Polish contemporary history. He was an ardent Polish patriot in the days when that designation meant imprisonment and deportation to Siberia (both of which he experienced) by the ruthless Russian government. No quarter was given to the Poles who kept alive the spark of Polish nationalism from 1795 to 1918.

Austria, on the other hand, had exerted a fairly benign supervision of her section of the Polish land and people so that in 1914 Pilsudski at once cast his lot with her against Russia. He raised a Polish Legion and served the Central Powers with enthusiasm, being under the impression that, were they victorious, they would reconstitute the Polish state and his country would realize her aims. However, Germany kept on using the Polish troops even when the Russians had been defeated, and continued to procrastinate and avoid Pilsudski's demands for the restitution of a Polish autonomy. Finally, Pilsudski refused to obey the orders of the staff of the German army and withdrew his Polish forces. For this he was thrown into prison at Magdeburg and would have been shot had not Germany desired to use him still further to placate the Polish people while she (Germany) contined her life-and-death struggle on the Western front.

Through a series of fortuitous circumstances resulting from the World War, the three oppressors (Russia, Germany, and Austria) were ruined, thus changing the tomb of the former Poland into the cradle of a nation



LANDMARK
Florian Gate, part of the
ancient city wall of Cracow, former capital of
Poland

born out of the travail of that titanic struggle. The attitude of the Allied Powers toward the Polish question was constrained by their obligations to Russia, although President Wilson in January, 1917, said, "A unified and independent Poland is a necessity for the future peace of Europe." However, from the moment of Russia's dissolution, the Allies no longer hesitated in declaring in June, 1918, that such a state was one of the aims of the war. On November 10, 1918, Pilsudski was invested by the National Council as "Provisional Chief of State," and a constitutional assembly or Diet was convened. The

constitution was voted on March, 1921, but the new Diet did not open until November, 1922, and a few days later elected the first president. Thus Pilsudski was Chief of State for four years. He had in this brief time put the many functions of government into opera-

tion and fought a bitter war against the Red Army which had penetrated to the very gates of Warsaw.

There is a wide divergence of opinion in Warsaw as to the meaning and value of the Pilsudski coup that wrested the executive power of the government of Poland from the second constitutional president, Wojciechowski, May 5–6 of this year, and made the picturesque Marshal dictator of Poland. Yet if one stops to consider the difficulties that this young nation has had to contend with in the eight years of its existence, he will not be



Standing in the buge grave, priests conducted the funeral ceremonies of the 500 victims of the coup d'état

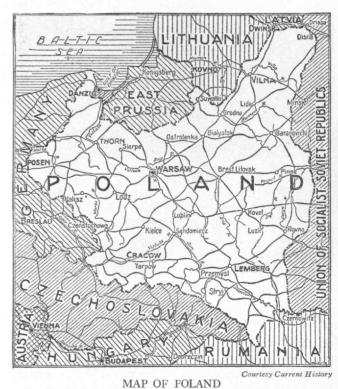
too harsh in his judgment of the present situation. A people unaccustomed to self-government, worn out by service in opposing armies in the World War, a devastated land fought over, back and forth, for four years, constituted a reconstructed state whose 2,400 miles of frontier was based neither on geographical nor historic reasons. The Bolshevik War in 1920 led to the Treaty of Riga in March, 1921, at which time the eastern frontier was based on the limit of the zone which came under Polish administration in 1919, but neither rivers nor mountains nor technical boundaries are there to designate the imaginary line. Furthermore, there are about 2,000,000 German colonists, mainly in the western provinces in Posen. They have always exerted themselves to eliminate the Polish Corridor, the wedge of Pomerania which extends to the Baltic Sea giving Poland access to less than 100 miles of shore line and cutting off the bulk of Germany from her province of Upper Silesia.

The unrest and jealousies created by this Polish Corridor can be imagined if one considers New Hampshire as populated by one nation, with Maine and the remainder of New England forming another. Put 2,000,000 people of one race in Maine and endow them with ideals and nationalistic aspirations kindred to Massachusetts, Rhode Island, Connecticut and Ver-



DEFENDERS

Troops in the heart of Warsaw making ready to defend the city against the attack of Pilsudski



Wedged in, surrounded by foes, this country of contention under president or dictator never forgets that it is an autonomous nation,

clings doggedly to its corridor to the sea

mont. Assume that New Hampshire has a population of 15,000,000 of another race with different ideals and nationalistic aspirations and another language, determined to cling to the death on the scant few miles of sea coast that New Hampshire boasts. Add to the situation a hatred and distrust on both sides dating back hundreds of years, the two customs barriers, different languages and a vicious trade war. Then one can easily imagine the possibilities for dissatisfaction on the part of the resident of Bangor when traveling to buy goods in Boston. Yet that is about what would be the situation if the Polish Corridor were reproduced in New England.

Can the national ideals of the Polish people be translated into a workable modern democracy? I believe that they can, provided the young government can survive these early years of trials and disillusionment of self-government. The coup in May was not the gesture of an ambitious adventurer. He saw his beloved Poland was getting a bad start in its new national life and he wanted to start again on a better

After his coup d'état, Pilsudski forced the Sejm, or parliament, to demand the resignation of the existing president. This they did and in turn offered it to him but he wisely declined it, nominating in his place Ignatz Moscicki, a former professor in Cracow University. Pilsudski assumed the Ministry of War and Bartel the Premiership. On August 26, a so-called Legal Council was created by Pilsudski. Its function is to pass judgment on the expediency and legality of every bill before the Sejm, or parliament. On September 24 the Sejm got tired of having the whip cracked over them

and ordered Bartel to drop two of his cabinet ministers. This Pilsudski refused to permit. The Sejm, still undaunted, refused to vote the government's budget on September 30. Bartel finally resigned on October 1 and Pilsudski took the Premiership. In forming a new cabinet two days later, however, he showed a marked change in attitude toward parliament in that he consulted and followed the advice of the speakers of both Houses in the selection of the cabinet, thus restoring the prestige of the Sejm.

In spite of all these happenings, the recommendations of Edwin W. Kemmerer of Princeton, appointed by Pilsudski as financial advisor, and his corps of experts have been accepted for the most part and are being put into operation. Professor Kemmerer is a great friend of Professor Davis R. Dewey of the Institute and has on various occasions addressed his classes. I met him in Warsaw and spent many pleasant evenings with him and his staff. He is most "bullish" on Poland, to use a stock market term. He feels that the country has a brilliant future. The report made to the Ministry of Finance last September consists of 800 pages, a result of two months' study of the following subjects: General banking and money, the tax situation, the defects of which brought on the May revolution, practical banking, accounting, customs and state industries. On August 11, Poland's indebtedness of \$10,000,000 to the Federal Reserve Banks of the United States was paid on the day it was due. The general reports made to the League of Nations at Geneva in September were optimistic and broadly warranted. Farm relief is receiving attention. There has been a steady increase in the gold and silver reserves to more than forty per cent of the currency outstanding whereas in the United States the actual gold behind the Federal Reserve currency also is only forty per cent. Professor Kemmerer, however, has sounded a solemn warning and caution that the people of Poland must not waver in their resolve to make great sacrifices for the ultimate good of their nation. He points out that Polish coal and Polish grain were, for the time being, artificially stimulated by the British coal strike and the poor crops in the rest of

Pilsudski will save Poland provided he retains the backing of the army and good will of the influential citizens. Mussolini is saving Italy through a blood and iron policy backed up by millions of enthusiastic members of his secret party, the Fascisti. Of the two, Pilsudski's position is the more precarious.

Some enthusiasts would like to look upon the regeneration of Poland as a situation comparable to the earlier regeneration of Italy in 1878. I do not believe, however, that Pilsudski is a second Garibaldi. Nor has he a Cavour to plan for him nor a king to act — Pilsudski is neither a socialist nor a capitalist. While he uses Mussolinian tactics, he refuses to adhere to the old French dictum, "I am the State."

Mussolini, the Man of Iron, has bludgeoned his way to apparent success. The toughness and bluntness of his instruments have subdued and silenced the Voice of Democracy. Pilsudski, the Man of Steel. . . . But is the quality of the steel such that it will retain its temper in the white hot furnace of practical politics?

A review of recent volumes of interest to Technology men

Autonomous Thought

THINKING ABOUT THINKING, by Cassius V. Keyser. \$1.00.96 pages. New York: E. P. Dutton and Company.

The Today and Tomorrow series is a useful and more or less successful attempt to present up-to-date ideas on a variety of subjects in tabloid form adapted to the limited digestive powers of everyday citizens. The genial professor of mathematics who is responsible for the present volume naturally exalts his own subject and its characteristic modern method of setting up a group of arbitrary postulates and drawing necessary conclusions from them. This is contrasted with "organic thinking," which is a process more or less common to man and other animals, and with "empirical thinking" which is characteristic of science in its earlier stages. The author's style is sometimes elaborate, often picturesque; for example: "an infinite regressus of metaphysical rot. . . . Yet most of the doctrines which we thus hold as sacred creeds and solemnly urge upon the world are unintelligible, vague, incoherent, ignorant, shallow, silly — logically rotten. . . .

"... To try to infer that a mathematical proposition is true from the fact that it has never failed to work is to reveal a certain practician type of mind utterly incapable of distinguishing mathematics from the geometry of a carpenter or the arithmetic of a grocer."

To abridge an argument already condensed to the limits of an hour's reading would transcend the capacity of this reviewer. Enough has been said, perhaps, to indicate that the treatment will probably appeal to such readers as have a taste for borderline matters and for mathematical points of view presented without mathematical symbolism or technique.

HARRY W. TYLER, '84

The Social Sciences

A GATEWAY TO THE SOCIAL SCIENCES, by Arneson, Barnes, Coulter, Hubbart. \$2.60. 384 pages. Boston: Ginn and Company.

Two recent educational movements are well illustrated in this book. On the one hand there has been a development of "orientation" courses for men in the first two years of their college work. These courses attempt to give men some knowledge of the various fields within which they may later elect more advanced and more specialized courses. Such "orientation" courses possess the advantage that they broaden the student's interest and contact with life as well as give him a better basis for his own future specialization. On the other hand there has been a movement which strives to break down the barriers that separate the various sciences from each other. An effort is being made to teach each science with more reference to its relationship to its sister sciences. In the social sciences this has made History and Political Science more disposed to recognize and emphasize economic factors. In Economics it has made the text-books more carefully historical in their treatment and more disposed to recognize the significance of government control over business.

Out of these two movements there has grown an effort in many colleges to offer an introductory course in Social Science which would survey the whole field of the social sciences. For such a course this book is an almost ideal text. But this book is more than a class-room text. Its easy readability makes it singularly available for the general reader.

The book, however, has a very individual flavor. One peculiarity stands out. In discussing each phase of the social sciences an effort has been made to apply at once the theory developed to some one of the more controversial fields of modern life. Such a method of presentation is likely to make the book exceptionally stimulating for class-room use. It is likely also to make the book unusually interesting for the general reader, though perhaps occasionally a little breathtaking. The emphasis and the distribution of space are unusual.

Thus, for example, some sixty pages, or nearly a sixth of the whole book, are devoted to the problems of patriotism, militarism and war.

In fairness to the authors it must be said that each of the problems they attack is discussed in a careful, scholarly fashion. The popular as well as the unpopular side of each problem is presented well. The value of the book in this respect lies in the fact that it emphasizes especially those aspects of each problem which are most likely to be novel to or underestimated by the average reader.

In content the book is almost startlingly comprehensive. The first few chapters are devoted to the evolution of man's physical structure. This section contains a singularly lucid, brief account of the present state of our knowledge with respect to human evolution. Then come a group of chapters which explain man's instinctive equipment and the modification of man's inborn mental traits by experience. The remainder of the book is then devoted to a discussion of the chief institutions which result from and in turn modify the nature of man. A discussion of the family is followed by five chapters on the development of our business and economic institutions. Then follow four chapters on the State and the chapters already mentioned on the problems of nationalism. The book is closed by a chapter on the educational process and its social significance.

With so comprehensive a program it is not surprising that this volume is the work of four different men drawn from the various fields of Political Science, Economics, Sociology and History. The amazing thing is that with four authors the style can remain so uniformly good and the various parts of the book so well organized into a systematic whole.

The book attempts to present no theories which are new to experts in the various fields. It confines itself to a clear and elementary exposition of facts already familiar in each of the four fields concerned. Its value lies in the fact that it organizes material from these various fields into a whole which is both readable and stimulating. The Technology graduate who is interested in the field of social science or in learning why man acts like a human being will find this work an exceptionally valuable introduction. One chapter in particular is almost certain to prove interesting. Chapter III contains the clearest, brief account that this reviewer has yet seen of the evidence as to human evolution.

DONALD S. TUCKER

Pueblo Indian Culture

ACOMA, THE SKY CITY, by Mrs. W. T. Sedgwick. \$4.00 xiv+314 pages. Cambridge: Harvard University Press.

Among Europeans there is a stronger tradition for the intelligent travel book, the volume of significant observation and comment, than there is among Americans, whose travelers appear less thoughtful. Professor Sedgwick, however, represented the best type of alert response to travelers' sights, to whom nothing human was alien. Mrs. Sedgwick's book is a product of similar interest, frankly not a work of research, but a compilation of matter made vivid to her understanding by two visits to the city on the mesa of Ácoma in New Mexico.

The culture of the migratory Indian was almost wholly defiled or destroyed before any intelligent interest in it arose in the United States; and we realize now it is pathetically too late to write the "Indians' Book" and found an "Indian Museum." Of the town-dwelling or Pueblo group, the culture was less completely obliterated when the anthropological and archaeological and folk-lore societies began to make scholarly record. Of these Indians, who were distinguished from the plains tribes by the development of maize and even of cotton, of loom weaving, of painted pottery (instead of basketry), by the domestication of turkeys, and by building stone houses on the refuge of the mesas and cliffs, certain aspects, especially the artistic, had reached a wider audience than that of the research workers. Tourists knew the splendor of the Zuñi pottery and gathered to gawk at the snake "dances." But the really fine records of Indian

culture were either too costly, like Mr. E. S. Curtis's superb series of photographs, or too learned, like the various papers, especially of Cushin, Gewkes, Hodge, and Dr. Elsie Parsons, to reach the somewhat mythical audience of "general readers," who seemed doomed without some encouragement to as rapid extinction as the Indian. The Indian anthropologists have no one who speaks with the combination of authority and charm that, in the case of the Englishman, J. A. Thompson, or the American, William Beebe, have made scientific natural history a general delight. Mrs. Sedgwick has gathered the material from the technical journals, so far as it concerns one Pueblo city, and kindles it with some of the enthusiasm born of her own glimpses of the actual place and people. She herself frankly regrets the brevity and superficiality of her contacts, while expressing full sympathy with the reticence of these people, who decline to extend anything more than a formal hospitality to the unknown tourist whisked over the desert in an auto to spend a day on top of the Sky City. Friends, however, supplied her with a considerable number of most interesting snapshots, reproduced in her volume; and there are touches of her own observation and comment, - of which this reviewer earnestly wishes there was much more. How can one have observed for a day the fabrication of the brilliant painted slip pottery, and give the reader so impersonal account as that in her last chapter? It only whets one's appetite and sends one to the admirable monograph recently published by Phillips Academy, and to the nearest Museum that treasures fine old examples, - thus probably serving precisely the purpose of Mrs. Sedgwick's writing.

It is significant of the sloppiness of American scholarship that the press of the first university of the land should pass in proof a volume wholly beautiful in typography and make-up, yet supplied with an absurdly inadequate index and marred by capricious inaccuracy in the printing of hyphens and accents in Spanish names.

HENRY L. SEAVER

Big Business

THE STORY OF STEEL, by J. Bernard Walker. \$3.00. xii+208 pages. New York: Harper and Brothers.

The great importance of steel to our civilization is given much prominence in this book, which deals with the production, use and selling of the large tonnage products of our steel industry. It is based primarily on the methods and practices of the United States Steel Corporation and the indebtedness of the author to this company for information, records and other courtesies is freely acknowledged. The language used is simple, and so far as possible, non-technical. The book is intended for a wide public as it forms one of the Harper Business Books of which series eight have already been published.

The first chapter consists of a short instructive discussion of the statistics of the industry in our country showing particularly the great growth from 1902 to 1922 when the annual output of steel ingots and castings rose from about fifteen to forty-five million tons. Next comes an illuminating and interesting discussion of the methods of mining, the size of operations and the importance of the Lake Superior iron ore deposits, particular attention being paid to the Mesabi mines. Chapter III takes up the transportation of the ore from the Mesabi mines to the steel plants or ore unloading docks along the Great Lakes. The magnitude of the operations and the great importance of cheap water-borne freight is clearly brought out. The amount transported in the eight months available to navigation is about sixty million tons.

Next come ten chapters devoted to steel plant operations, the subjects being the blast furnace; Bessemer steel making; basic open hearth practice; the manufacture of coke; rail making; the manufacture of rods, wire and nails; the rolling of shapes; the manufacture of pipe; the making of seamless steel tubes; and the manufacture of plates, sheets, and tin-plates. These chapters are necessarily rather technical in character. On the whole they are correct from the technical standpoint. A number of minor inaccuracies can readily be corrected in a subsequent edition.

There are six more chapters, the next two being on the safety and welfare work carried out by the steel companies. This safety movement has had remarkable and very valuable results, even greater than those pointed out in the book. The next chapter deals briefly with the selling methods of the industry and gives prominence to the great importance of the sales department. The financial policy of the United States Steel Corporation is the subject of the next chapter which of necessity develops into a laudation of Judge Gary.

The last two chapters are written by Mr. Edmund Brown, Jr., of the Brookmire Economic Service, Inc. They deal with the marketing of steel, and the financing of the steel industry. The importance of the warehouseman or jobber to the industry is very clearly brought out, and there is a thoughtful and helpful discussion of the Pittsburgh Rating Case and the methods of pricing steel products. His other chapter shows the need of turning earnings into plant extension and the high ratio of fixed property investment to sales compared with other industries. It is a good and detailed discussion of the matter and clearly shows why the dividends paid by the steel companies are relatively low as compared with those of many other concerns.

G. B. WATERHOUSE

A Survey of the Sciences

THE ANATOMY OF SCIENCE, by Gilbert N. Lewis. \$3.00. xii+219 pages. New Haven: Yale University Press.

This book contains the text of the twentieth lecture course delivered at Yale University under the auspices of the Silliman Foundation. Professor Lewis, at one time a member of the Faculty of the Institute, not only purports to give the scientifically inclined layman "who is not so much interested in the products of science as in its methods—a glimpse of the scientist's workshop—his habits, his tools and his raw materials," but also to appeal to the specialist in the hope that "he may find in the several chapters something new of substance or method."

In both these aims Professor Lewis has reached his goal with a nicety of consummate skill which reminds one of the powerful analyses of Poincaré and Mach. More than two-thirds of the book are devoted to the discussion of those branches of science which are strictly quantitive in their methods (mathematics and physics), as though to impress the author's subtle dictum: ". . . science has its castes. The man whose chief apparatus is the differential equation looks down upon the one who uses the galvanometer and he in turn upon those who putter about with sticky and smelly things in test tubes." Thus chemistry and biology are rather summarily dismissed, with a smattering here and there of the deeper problems of psychology and philosophy. Geometry is enthroned as queen in this rapid survey of the trends of contemporary scientific thought, thus acknowledging the profound influence of Einstein's synthesis of the sciences of Galileo and of Pythagoras. The author expounds in a masterly fashion the conquests of Minkowski and Einstein towards the geometrical interpretation of the physical world; thus restricted relativity is shown to be essentially nothing but the geometry of asymptotic rotation. When, in discussing the reversibility of radiation, he finds a conflict between the demands of geometry and those of that pet of most philosophies, the law of causality, he does not hesitate to ascribe a physical meaning to the length of the null lines of Minkowski space a step fully as bold as Einstein's interpretation of the physical significance of the Lorentz transformation - and casts the causality principle overboard.

This suggestion, together with Professor Lewis' interpretation of free will — in his own whimsical phrase: "... in the game of chance played by the atoms and the molecules even the simplest organisms are playing with loaded dice"— seem to us the most far-reaching suggestion in this remarkable collection of essays. His views concerning the reversibility of all physical processes — a "two-way time," as it were — and the suggested breakdown of the Mendelian law to allow for the transmission to the offspring of certain acquired characteristics, are novel, interesting and important, but there the discussion is neither particularly convincing nor quite so illuminating.

The book itself is divided into eight chapters: Science, which the author aptly characterizes as a study of the proximate, not of the ultimate, and the method of science which "is hardly more than the native method of solving problems, a little clarified from prejudice and a little cultivated by training" aided and abetted, it is true, by those refining processes which we call observation, abstraction, extrapolation, form the subject of most of the first chapter. Science is neither "absolutely" true nor "absolutely" false, the demoted Comptian school notwithstanding, and "once we get out of the childish notion that . . . every statement is either true or false, that every question may be answered with a 'yes' or 'no' . . . we have gone a long way towards acquiring an understanding of the nature of scientific thinking."

(Continued on page 174)

News from the Alumni Clubs 20

Technology Club of Norway

Our local Club is thriving although the number of meetings is not as large as we should wish it to be. This is due to several reasons — the main one being that there are only a few members in town and we meet quite frequently anyway. The industrial and business situation in this country is rather depressed, and this also has its consequences for the Club. Our financial conditions are anything but glorious.

We are getting along all right, however, and the Club sends its best greetings.

CLAUS M. THELLSFSEN, '22, Secretary, Aasaveien 8A, Oslo, Norway.

Technology Club of Kentucky

On Tuesday evening, November 23, at 6:30, the Club met at the University of Louisville campus for supper served by the Home Economics Club of the University. No fault could be found with the meal, — excellent food and a running entertainment by L. S. Strong, '98; William H. McAlpine, '96; and C. C. Webb, '10. The following also were present: Mrs. Strong; F. P. Poole, '05; William H. Koppelman, '07; John A. Miller '25; D. C. Jackson, Jr., '21; and Mrs. Jackson. After the supper the Club looked over the Speed Scientific School, which is the engineering school of the University and is being conducted on the coöperative plan with the industries of Louisville in a manner somewhat similar to Course VI-A at Technology. At eight o'clock a moving picture, "The Story of Gasoline, "was shown to the Club members and their guests and some of the Speed School students who had been invited by the Club to attend. C. C. Webb procured the picture from the Bureau of Mines and gave a mighty interesting discussion during its showing of the various phases of gasoline production.

A digest of the 122d Meeting of the Alumni Council was read which brought out the necessity of the membership of the local alumni clubs throughout the country to convince the public that a normal boy can go to the Institute and secure a degree without ruining his health and becoming a physical wreck. It was decided to hold the next meeting at a luncheon sometime between December 25 and January 1, so that the Club can have as its guest, Professor Dugald C. Jackson of the Institute who will be in Louisville at that time. Visiting Technology men are always welcome at our rather irregular meetings. They should get in touch with the Secretary at the Speed Scientific School of the University of Louisville.

Dugald C. Jackson, Jr., '21, Secretary, Speed Scientific School, Univ. of Louisville, Louisville, Ky.

Technology Club of Western Pennsylvania

Dean Burton found the necessary few spare hours in the itinerary of his Eastern trip to stop off in Pittsburgh November 12 and talk to the local alumni Club at their first dinner meeting of the year, held in the University Club.

The sixty-odd old graduates who attended cheered their approval as the Dean voiced a few attitudes toward the past Presidents of the Institute, with particular reference to their relations with the undergraduates

The Club here has effected an extensive organization to run itself for the current season, an organization in which the responsibility is spread over a large number of heads. This made it necessary for Dean Burton to do a little listening during the evening in addition to his talking, while each of the aforesaid responsible heads arose and reported on his particular phase of the Club's activities.

Thus Mr. Morris Knowles, '91, reported news of local interest from the Institute Corporation, of which he is a member; Mr. A. Kullman, '25, reported news of local interest from the Institute faculty of which he is not a member; and Mr. J. O. Handy, '88, reported that progress was being made in the matter of a Pittsburgh scholarship to be awarded in the local schools, the progress being that everyone thought it was a fine idea. No one had theretofore been asked to contribute any money.

Mr. Knowles gave a very interesting outline of the work of the visiting committees of the Corporation at the Institute and the work of advisors both alumni and non-alumni to these committees. Mr. Knowles is chairman of the visiting committee for Course I. There was also a verbal report of the "riot" as the pre-Field Day playfulness of certain sophomores and freshmen has come to be known. This report was something of a scoop because at that time four of the less quick-footed sophomores were still out on bail.

R. W. Chandler, '12, presided at the dinner and Maurice R. Scharff, '09, was toastmaster and introduced the Dean. An effort is being made to finance the activities of the Club this season partly by means of a guarantors' Fund, which will subsidize the various affairs and render them available to the members at a minimum of cost, often less than the actual cost to the Club.

This effort is in charge of the Finance Committee, of which Mr. Kenneth L. Seaver, '00, is chairman. Mr. Seaver has just addressed to the Club members a most touching letter urging on them the recognition of this Fund. There was also in the letter some mention of checks and amounts ranging from five to fifty dollars.

The Club meets weekly Fridays at 12:15 for lunch in the Chamber of Commerce dining room, Chamber of Commerce building. The attendance has been large enough already to permit the Club the use of one of the private dining rooms there. Those alumni who tarry in Pittsburgh on Fridays can get more of this at the above-mentioned luncheon place; those who do not happen in on Fridays, but come on another day, can get something like this by phoning Grant 4300 and asking for R. W. Chandler, the president of the Club, or from the same switchboard operator, for George W. Ousler, '16, who is vice-president of the Club.

ARTHUR W. SKILLING, '21, Publicity Secretary, Morris Knowles, Inc., 507 Westinghouse Bldg., Pittsburgh, Penna.

Technology Club of Philadelphia

The suggestion has been made that the name of this organization be changed to "Technology Club of Philadelphia, Inc." Under the able guidance of our President, Jerome G. Harrison, '06, the duties involved in operating a Club of this character have been successfully divided among several committees. We are no longer "one of those antiquated, one-man, Philadelphia organizations." All who are involved are striving to make the year 1926–27 the best in the history of the Club.

To describe all the committees and their duties would require much space so, as an illustration, the entertainment committee and the speakers committee will be mentioned briefly. The speakers committee, of which Arthur Craig, '23, is chairman, have thus far procured two very interesting speakers. For our first monthly meeting Mr. Harry C. White of the General Electric Lamp Works at Harrison, N. J., gave us a very instructive talk on the "Man Power of America." Mr. White gave us a history of lighting, and what the trend was for the lamps of the future. This meeting was held November 3 at the Engineers Club.

For the second meeting, to be held December 1, Craig was successful in procuring Captain G. C. Westervelt, '08, U. S. N. This meeting is in the able hands of Bob Weeks, '13, who has procured the Pennsylvania Athletic Club for the occasion. The Pennsylvania Athletic Club is a very new and attractive Club, its palatial building having been opened early in 1926. Before dinner it is planned to have all hands enjoy the facilities offered by the Athletic Club, which is classified among the best. Bob is Chairman of the Entertainment Committee and is certainly doing a good job.

The November meeting is the first gathering since Field Day which was held in June. However, during the intervening months there was a very good attendance at our weekly Thursday luncheons in Wanamaker's Tea Room. A table has been reserved for this occasion in the southwest corner of the room and should any Technology men be in the city on Thursdays, they will be certain of a welcome at our table.

Henry Arthur Grosscup, '20, Secretary, S. E. cor. 5th and Race Streets, Philadelphia, Penna.

Montana Society of the M. I. T.

Charles W. Goodale, '75, (the numeral refers to Class and not to age) chairman of our local Alumni Association, was honored with a dinner by Great Falls members, when he visited that city on November 6. We told you that Al Wiggin, '07, would do it right and he sure did, as he not only arranged for the dinner, but paid for it as well.

Twelve Technology men and two guests occupied a table in a corner of the Palm Room of the Hotel Rainbow and partook of a collation, served in scientific and technological style. The boys all emulated our mascot, the beaver, after which the gathering listened with great interest to Mr. Goodale's lucid description of new activities at Technology, such as the dormitories and the proposed auditorium, Alumni Council meetings, and so on. He also told of the proposed National Technology Center, to be established in New York City. Besides this, he gave a very interesting narrative of his experiences in western mining centers. A full account of his experiences at Tombstone was published in The Technology Review and Mining and Metallurgy some time ago. O. F. Wadsworth, '89, told of his three years at Technology and one year at Harvard and Carl Lundberg, '22, told of his experiences during the World War.

Earl S. Bardwell, 'c6, superintendent of the furnace and electrolytic refinery of the Anaconda Copper Mining Company, a scholar-ship man, was next the center of attention when he related reminiscences of his college days. John D. Fitch, '24, who is connected with the building of the new power unit for the Montana Power Company, gave his impressions of his entry into Great Falls, how the train seemed to follow the big stack like the Indians follow a totem pole, with no town in sight until the iron horse hove into the draw just before

reaching the depot.

R. H. Willcomb, '07, (note the magic numerals again), manager of the Great Falls Iron Works, gave remembrances of his days at the Institute in terms that were anything but ironic. Mr. Wiggin, who is manager of the Great Falls plant, of the Anaconda Copper Mining Company, and who holds several high civic honors, besides being a director in the largest bank in northern Montana, was the recipient of a vote of thanks for the dinner and good fellowship enjoyed by all and a rousing cheer was given for Mr. Goodale.

Those in attendance were the honor guest and his brother, David Goodale, Albert E. Wiggin, '07; O. F. Wadsworth, '89; E. S. Bardwell, '06; R. H. Willcomb, '07; Carl J. Lundborg, '22; John D. Fitch, '24; Richard W. Plummer, '26; E. C. VanBlarcom, '26; Frank P. Romanoff, '26; R. W. Wilson, '08; J. G. Fletcher, '26; and G. B. Lundevall, a

graduate of Heidelberg.

As an epilogue to the above, the writer desires to express his regrets that he was not free to attend the gathering of free fellowship and to partake of the free feed.

CARL J. TRAUERMAN, '07, Secretary, 25 East Broadway, Butte, Montana

Indiana Association of the M. I. T.

On Monday evening, September 20, fifteen of our Indiana Alumni enjoyed dinner together, having as our guest Stanley Boyle, Notre Dame graduate, who entered Technology this fall. Donald C. Hooper, '26, and Clifton B. McFarland, '26 (Richmond, Ind.) were formally inducted into our membership.

President Wayne, who recently returned from an extended trip through the east, talked interestingly of research work on electrons being done in laboratories of the General Electric Company, Schenectady.

Those present in addition to those named above were Frank C. Balke, '14, W. W. Bonns, '99, Norman Doane, '15, F. L. Gemmer, '24, Charles B. Mayer, '05, H. S. Morse, '03, L. D. Nix, '08, Wilson B. Parker, '88, Herman A. Scherrer, '03, W. M. Taylor, '86, J. L. Wayne, '06, and the Secretary.

'96, and the Secretary.

Technology is well represented at Purdue University, writes A. A. Potter, '03, Dean of the Schools of Engineering. W. A. Bevan, '21, R. G. Dukes, '94, J. L. Bray, '12, W. E. Howland, '22, J. A. Sauers, '22, and W. P. Turner, '86, are the other men from the Institute at

Purdue. We hope to have all of these men with us at our next meeting. We of Indianapolis are proud of our Mendelssohn Choir of one hundred and fifty well-trained voices, which gave a most enjoyable concert last Monday evening, November 22, and we are especially proud that our Arthur I. Franklin, '98, is president of that organization. Wilson B. Parker, '88, is also a member of the choir. The next meeting of the Indiana Alumni will be held during the first week of December.

FRANK J. TRAVERS, '23, Secretary, Eli Lilly and Company, 210 E. McCarty St., Indianapolis, Ind.

M. I. T. Club of Western Maine

Our first meeting of the year took place Tuesday, November 16, at the Columbia Hotel. O. B. Denison spent the afternoon with us, and visited some of the local alumni who were not coming to the dinner.

Professor Samuel C. Prescott of the Department of Biology and Public Health was one speaker of the evening. He is a member of the investigating committee so he gave us a résumé of what they had found out up to that time. O. B. Denison had with him the Zizziter movies, together with those of the new Coöperative Course in Chemical Engineering. He told us something of what has been going on at the Institute and afterwards entertained us with the movies.

We were very fortunate to have two men in close touch with Institute matters to tell us what has been happening and help us to keep informed. From the response at this luncheon we feel that we should

have a very successful year.

C. Hall Baker, '22, Secretary, Cape Cottage, Maine.

Southwestern Association of M. I. T.

The members of the Southwestern Association of M. I. T. gathered for a luncheon at the Kansas City Club on Tuesday, November 23. Among those present were H. A. Rapalye, '08; Page Golsan, '12; William L. McPherrin, '14; Hermann C. Henrici, '06; A. T. Cushing, '11; J. W. O'Brien, Jr., '18; Charles E. Brown, '20; B. W. Crenshaw, '23; G. W. Hall, Jr., '23; R. J. Scholtz, '22; and myself.

After lunch Golsan appointed Rapalye as a nominating committee for the purpose of recommending officers for the coming winter. The nominating committee of one, after due deliberation, recommended Henrici for President, Scholtz for Vice-President, and Eltweed Pomeroy for Secretary. Henrici's modesty must have gotten the best of him again, for he was inclined to object, but nevertheless he was railroaded into office by having the Secretary cast one ballot for the entire slate.

The meeting then broke up and we all returned to our several businesses, after we had indulged in the usual after-lunch smokes and talk, and had reached a decision to hold our next meeting on December 14.

ELTWEED POMEROY, '23, Secretary, 320 Dwight Bldg., Kansas City, Mo.

Washington Society of the M. I. T.

At the regular monthly luncheon of the Washington Society of the M. I. T., an address was given by Charles Elliott, 3rd, on the city parks, present and prospective of the City of Washington, and of the plans which are made for the improvement of civic conditions throughout this area.

One of the striking things brought out by Mr. Elliott was the fact that to a certain degree the city is being strangled or prevented from normal growth by the existence of large areas of land held out of use by various institutions, public or semi-public. For example, the Soldiers Home ground on the north prevents a desirable development of streets and homes. Adjoining this and from almost a complete circle around the city are other vast areas owned by universities or religious organizations, including cemeteries and other tracts so situated as to retard the development of comprehensive plans. In spite of this, progress is being made and some of the difficulties are being overcome by persistent effort on the part of organizations of citizens and the efforts of officials.

The luncheon was largely attended and there is a steadily growing interest in these get-together meetings.

W. M. Corse, '99, Secretary, 810 18th Street, Washington, D. C.

The Technology Club of New Bedford

At the annual meeting of The Technology Club of New Bedford, held at the Wamsutta Club last evening, the following officers were elected: Clayton P. Hawes, '16, President; William Tallman, '15, member of the Executive Committee; Charles L. Faunce, '88, Secretary and Treasurer.

Professor Edward L. Bowles of the Massachusetts Institute of Technology delivered an address outlining the principal features of the electrical communications options in the Institute's five year coöperative course in electrical engineering. Orville B. Denison, '11, spoke upon Alumni and Institute affairs.

CHARLES L. FAUNCE, '88, Secretary, 137 Brownell St., New Bedford, Mass.

Rews from the Classes 20 20

News from even-numbered Classes is published in issues dated November, January, March and May. News from odd-numbered Classes is published in issues dated December, February, April and July. The only exceptions to this rule are those Classes whose Secretaries have guaranteed the appearance of notes in every issue. These Classes are: 1895, 1896, 1900, 1901, 1902, 1905, 1907 and 1910 to 1926 inclusive. Other Classes adhere to the alternate schedule. Due to necessary limitation of space, The Review is unable to publish lists of address changes of members of the Association. The Alumni Office, in Room 3-209, M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

We regret to announce the death of Charles W. Leatherbee, which occurred on October 4, 1926. Leatherbee was the third member of a group of four '74 men to die — Austin, Leatherbee, Mansfield and Read — who were fellow students at the English High School before entering the Institute. As an interesting reminiscence, it is recalled that these four boys, at the time of the Boston fire, when horses were disabled by the distemper, helped drag a hose-carriage from the South End to the scene of the fire downtown.

The Class luncheon, on October 4, was attended by Elliot, E. Holbrook, Nickerson, C. F. Read and W. R. Russ. The Secretary has since received a call from Holbrook who was about to leave for the far west to pass the coming winter with his daughters.

The Class directory for 1927 was mailed to members on November 17. The ranks are thinning and there are now forty-one names in memoriam as against twenty-one living.

CHARLES F. READ, Secretary, Old State House, Boston, Mass.

The Secretary caught a hasty glimpse of Hamilton a few days ago. After several years of service as civil engineer for the City of Boston, Hamilton has retired and is living at Wrentham, Mass.

Nothing has been heard from Chase since his severe accident, though he has been written to asking him to have some one write for

him if he was unable to do so for himself.

When in Portland, Ore., the Secretary received a call from J. F. Batchelder whom he had not seen since the student days of '80. Fred has grown old, like the rest of us, but was easily recognized. We had a most interesting evening together, reminiscent of our student days and discussing the events in our later lives. Batchelder is now engaged in the real estate business at Hood River, Ore.

While at the Volcano of Kilauea, the Secretary met Emerson of '76. A native of the Hawaiian Islands, Emerson is well versed in the old Hawaiian lore and an authority on the language. One evening at the hotel he gave our party a talk on the meaning of some of the names connected with the volcano. In the '80's we were fellow members of the Hawaiian Government Survey and it was a pleasure to meet him again.

In Los Angeles Mrs. Barton and the Secretary were entertained by Mrs. Barton's sister, Dr. M. J. Bede, '95, who was a successful physician at Roslindale, Mass., for many years, but has now retired and lives in California. Also he was pleased to receive a call in Los Angeles from John Carroll Chase, '74, who had flown from San Diego for the purpose of the call.

George H. Barton, Secretary, 89 Trowbridge Street, Cambridge, Mass.

The Boston Evening Transcript of May 15, 1926, contained the following notice which will be of interest to members of the Class:

to members of the Class:

"A year and a half ago a section of rubber block pavement was laid in Harrison Avenue in front of the entrance to the Boston City Hospital, a place that was selected as well suited to demonstrate the quietness of this sort of street surface which is one of its important qualities. It has been through two winters and a summer and is still in good condition, showing very little wear though traffic of all sorts passing over it is heavy. Each block is twelve by six inches in area and two inches deep and they are laid in a plastic material of sand and cement put over the street foundation. The

edges were painted with hot asphalt when laid. It was noted that during the winter snow and ice did not accumulate upon the rubber pavement as much as it did on surrounding pavement and there was no slipperiness for either motor vehicles or horses. Traffic makes practically no noise in passing over the rubber and there is no vibration. The rubber paving used here was invented by Rufus F. Herrick, consulting engineer, of Boston, and William T. Gould of Boston, a paving engineer, assisted in its development. The blocks are made in large part of reclaimed rubber and in view of the present cheapness of this product and the abundant sources in discarded tires, it is expected that there will be a marked revival of interest in the peculiar qualities of this kind of pavement."

Herrick has patented the product in the United States, Great Britain and Canada and we all wish him well in its introduction.

WALTER B. SNOW, Secretary, 115 Russell Ave., Watertown, Mass.

On October 29 a testimonial dinner was given at the Engineers Club to George P. Aborn, in commemoration of the fortieth anniversary of his connection with the Blake and Knowles Steam Pump Works as Mechanical Engineer and General Manager. Earlier in the day the employees at the Works in East Cambridge showed the high regard in which they held their general manager by presenting him with a gold watch and chain and an Atwater-Kent Radio Outfit. Aborn entered the employ of the Knowles Steam Pump Works at Warren, Mass., in October, 1886. In 1905 he was made general manager of the combined Blake and Knowles Steam Pump Works at East Cambridge.

Sidney F. Smith, who was for many years examiner-in-chief in the U. S. Patent Office in Washington, has been made a member of the Board of Appeals at the same office. Smith was one of the founders, and the first Lord High Chancellor of the Sigma Nu Phi Fraternity (legal). In recognition of his continued and efficient services in the upbuilding of the fraternity, the library of the fraternity in Washington has been named the Sidney F. Smith Library.

ARTHUR G. ROBBINS, Secretary, Room 1–270, M. I. T., Cambridge, Mass.

The Secretary greatly regrets to report the death of our only Japanese classmate, Stejiro Fukuzawa, of Tokyo, Japan, which occurred on November 3, 1926. After graduating from Course I, Fukuzawa was with the Sanyo Railway Company of Kobe. Later he became proprietor and manager of the Jiji Shimpo, one of the leading newspapers of his country. While we have not seen him in this country since his graduation, Horn and Webster visited him while they were in Japan. A letter was received from him, expressing the gratitude there for the prompt action of America in relieving the distress caused by the great earthquake. In 1891, he married Kiku Hayashi. There was one child, Sono. At the Annual Meeting of the Board of Directors of the Central

Railroad of New Jersey held on October 28, William G. Besler, who has been President of the company since 1914, was elected chairman of the Board of Directors and chairman of the Executive Committee and R. B. White, who came to the property from the Baltimore and Ohio in January, 1926, as Senior Vice-President, was elected President.

Mr. Besler started his railroad career in 1880 as a trainmaster's clerk on the Chicago, Burlington and Quincy, when he was sixteen years of age. In four years he had advanced to private secretary to the General Manager, in which position he saw the necessity for acquiring a technical education, whereupon he requested and was given a fur-

Books 20

Continued from page 170

Dedekind's numerical continuum and the successive generalizations of Euclidean geometry obtained by abandoning one or another of Euclid's postulates, discussed in the first two chapters, constitute the mathematical background of the next four lectures, which are wholly devoted to contemporary aspects of physics: kinematics, mechanics, optics and the quantum paradox, thermodynamics and probability. To obtain an accurate cross-section of modern physics just at the time when the formidable effort of Bohr, Heisenberg, Born and Schrödinger combine to produce an upheaval comparable only to the revolution in scientific thought which marked the coming of relativity a decade or two ago, is an arduous task indeed. Professor Lewis points out carefully the difference between the method of mechanics, arising from the genius of Galileo and Newton, where we are concerned with a few moving bodies only, and the method of thermodynamics which deals with a great many moving particles and is due to Gibbs and Boltzmann. Here we must throw off entirely the constraint of the mechanistic determinism and cope, not with certainties, but with probabilities. But, just the same as the last half of the nineteenth century brought forth the conviction that something must be added to mechanics before it can interpret thermodynamic phenomena, so the last two decades have impressed on the physicist with even increasing emphasis the certainty that we cannot analyze the most minute known system, the atom, by using the same mechanical laws which govern for instance the large-scale pendulum. This bids fair to become one of the permanent conquests of science. Here again (p. 134) Professor Lewis seems to be a pioneer in recognizing the phantom field" which tells both the light quantum and the flying bullet where to go and which has been thrown so sharply to the fore in modern researches. Indeed he must be recognized as one of the first clearly to enunciate what already appears as one of the most fruitful and important ideas of modern physics.

As a whole the book is eminently readable and delightfully planned. Occasional jests and whimsical parables relieve the drabness and illustrate the meaning of the more abstract conceptions. The book should be on the layman's reading table during the long winter evenings and will certainly arouse the specialist's attention.

M. S. VALLARTA, '21

Europa, Ltd.

EUROPE SINCE WATERLOO, by William Stearns Davis. \$6.00. xix+965 pages. New York: The Century Company.

This husky tome belies its bulk. It is not dry and dusty but, on the contrary, is a very readable story of the history of the European powers during the century following the Napoleonic Wars. Its author is professor of history at the University of Minnesota and previously wrote a book titled, "The Roots of the War."

The present volume is divided into three parts: I. The Triumph of Nationalism; II. Armed Peace; III. Armageddon: The World War. The first chapter of Part I deals with the Congress of Vienna in 1815 and what it brought to pass. By shifting the scenes back and forth, first presenting a chapter on Russia and then one on France and another on Italy or Germany, or Austria, and then reshuffling the order, the author manages to convey a composite story of the march of progress of the continent. Part I closes with the humiliation of France by Prussia in 1870–71; Part II covers the situation up to 1914; the sub-title of Part III is too obvious to need explanation.

The period of history embraced by Professor Davis's writings is one of which few, other than close students of history, have a clear perspective. It is the same ground covered in the freshman History course at the Institute as it has been conducted since 1918, (the first book mentioned in Professor Davis's bibliography is Volume II of Hayes "Political and Social History of Modern Europe" used as a text in E 11 and E 12) but, after all, only a few remember details of freshman courses even into the sophomore year except in courses where the sophomore work is a continuation of that of the first year. Furthermore there is a difference between what one gets from being (Continued on page 176)

News from the Classes

1888 Continued

lough and left the service to enter Technology, Class of '88. Returning to the Burlington, he re-entered the service as Chief Despatcher and Trainmaster and subsequently became Superintendent of the St. Louis Division, and remained with the road for a period of eleven years. He then came east as a superintendent of the main line of the Philadelphia and Reading in 1899, held that position for about a year when he was promoted to General Superintendent. In March 1902 he was made General Manager of the Central of New Jersey, a majority stock interest in which the Reading had acquired in 1901, in December, 1902, he was elected Vice-President and General Manager and on May 1, 1914, was elected President and General Manager.

The Central of New Jersey, during Mr. Besler's connection with it, has made very substantial progress, gross revenues advancing from sixteen million dollars in 1902 to about sixty millions in 1926. It has paid twelve per cent dividends since 1910. It has assets of extraordinary value in its terminal properties on New York Harbor, the acreage of which is believed to be the largest of those of any railroad reaching that important traffic center.

The most noteworthy thing about Mr. Besler's administration probably is the fact that from 1902 to 1924 as result of the terminal development and the general up-building of the railroad property, the Central of New Jersey increased its investment in road and equipment \$100,187,803 which expenditure was accomplished without any increase in the company's capital stock or funded debt with the exception of equipment trust certificates. In the same period the company paid out \$66,731,276 in dividends which means that for every dollar paid in dividends, one dollar and a half was put back into the property for additions and betterments. It is of interest, furthermore, that the amount devoted to capital improvement during Mr. Besler's administration has totaled no less than \$365 a share on the capital stock

WILLIAM G. SNOW, Secretary, 112 Water Street, Boston, Mass.

Lewis, who is actually one of the great authorities of the country on subway construction, but is too modest to admit it, has again been engaged in making a study of a subway system for the central business district of the City of Providence, R. I., as one of the ways and means to secure relief from the continually growing congestion of business and traffic in the city. Last summer he submitted a report proposing two subway lines, one running approximately north and south and the other east and west. The total length of the subways would be about two and eight-tenths miles and the approximate total cost would be about \$17,000,000. The scheme contemplates removing all the electric sur-

face cars from the central district and re-routing nearly all of them through the subways.

Henry Howard, Alice Sturtevant Howard, his wife, and Katherine Howard, his daughter, have written a book called "The Yacht Alice" which has been published by Charles E. Lauriat Company, and contains about sixty full page illustrations, including line plates reproduced from the original plans which will be of the greatest value to every yachtsman. We quote from a press review: "This important yachting book is the work of Henry Howard, a yachtsman of international reputation, assisted by his wife and daughter. His experience as a cruising yachtsman covers many years and many types of boats. The result of that experience and of the lessons taught by these years of cruising and boat owning, is the ketch Alice, one of the finest auxiliary cruising yachts in existence. He tells here the story of the planning of it, the designing and building, in a most thorough and alluring manner, that will appeal not only to the yachtsman, but to the general reader. This is followed by a complete set of specifications, some thirty-eight pages, the result of much study and of a life time's experience on cruising yachts, and comprising every possible detail of equipment for comfort, convenience and safety. This part of his book will prove of special interest and practical service to anyone who is anticipating building or buying a boat of any sort.

"The second half of the book, the work of Mr. Howard's wife and daughter, describes two remarkable cruises on the Alice, one from

1880 Continued

New York to Miami through the inland water ways, the other a cruise of several weeks' duration among the Bahama Islands and to Cuba. The log of each of these cruises is most entertainingly written, and besides describing the daily life on board the Alice, the places visited and the experiences gone through, gives a great deal of practical information that would be of value to any one contemplating similar cruises. The illustrations form an important feature of the book. The plates reproducing the plans have been made with great care, are all very legible and accurate, so that the veriest tyro at yachting would have no difficulty in understanding them. The other illustrations are chiefly halftone reproductions of photographs taken during the two cruises, and these lend additional interest to the narratives. A complete and comprehensive index adds greatly to the value of the book, especially in connection with the specifications."

A distinct flair for maritime life and adventure has always been present in '89, as witness its various cruises in the tug Orion, the clipper Royal Splendor and the near-nautical excursions to the Hartford, Corinthian, and other available well-found yacht clubs, not to mention Frank Hart's book on "Admirals of the Carribbean," and George Orrok's treatise on "Sea Walls," and now Henry Howard's book. It remained, however, for Juddy Wales to cap the climax with his magnificent series of etchings, drawings and lithographs of sailing ships of all kinds, war-brigs, frigates, clippers and whalers. The art critic of the Boston Transcript has this to say about the current exhibition of

Juddy's work at Goodspeed's Gallery:

"Mr. George C. Wales, who is now exhibiting at Goodspeed's, has much distinction among contemporary makers of ship pictures, his work invariably having a fine degree of rectitude, a spirit, almost severe and typical of the finest in New England tradition. His work might be referred to as a carrying on of that of predecessors in that slocality whose pictures, more especially lithographs, are cherished as handsome documents of our marine history. . . There is elegance and movement in his etching of a square-rigged ship under full sail, while the water color of an American packet ship becomes a delight from the sheer buoyancy and lightness of apparition, sensitive and accurate drawing being not the least important factors in the success of the study."

It is suggested that at the next reunion the usual discussion of the finances of the now prosperous Alma Mater be retired in favor of a wetter theme, more in consonance with our briny aspirations. Further

remarks from the Class are in order.

Walter H. Kilham, Secretary, 9 Park Street, Boston, Mass.

Dr. Gary N. Calkins, who has been connected with Columbia University for many years, has now become the Director of the American University Union in Paris. He is the first scientist to head the Union.

Gary's address will be, 173 Boulevard Saint-Germain, Paris, France, and he would undoubtedly be glad to hear from any of you fellows

who would write to him.

George E. Hale has been star gazing some more. He has recently published a little book with the alluring title, "Beyond the Milky Way." It is probably over the heads of most of us, but to the as-

tronomical world it is one of great interest.

We regret to report the death of William B. Reed. He was Vice-President of the H. B. Smith Company of Westfield, Mass. His death occurred on August 4, 1926, at Edgartown, Mass., where he had been for several weeks recovering from illness. He was with us for two years at Technology, and has been connected with the above company since. He knew the heating business as did few men, and planned wisely for his company and the public which it served, and the company will keenly feel his loss. He took an active part in affairs in Westfield, and was Chairman of the 250th Anniversary Celebration.

Francis Goodhue died on August 24, 1926, at his home in Germantown, Penna. Francis will be remembered as being with us our freshman year, a slim slightly built boy, who proved to be a star end on the varsity football team. Your Secretary met him in New York some years ago, and he looked just about the same as he did in our freshman days.

The business office of Andrew W. Woodman, Consulting Engineer, is at Room 304, 81 East Madison Street, Chicago. We have not heard

from Andrew for some time.

We also regret that Joseph K. Noyes of Binghamton, N. Y. has died. He had not been in good health for many years. Harry A. Kennicott's address is 307 North 9th Street, Nebraska City, Nebr.

GEORGE L. GILMORE, Secretary, 57 Hancock Street, Lexington, Mass.

'92

Although I have gathered no more news of importance of the members of our Class than I had at the time for sending in notes for the November issue of The Review, I am sending what small items I have in order

that the Editor's form may not be inserted for a second time. Except that I meet Dean frequently at lunch, have seen Carlson, E. Q. Sylvester and Shepard by chance on the street and on Boston Common, and have had personal notes from Hutchinson and Bassett, I have not heard or seen anything of the members of the Class since our dinner in June. So much for your Secretary's moving in a small and constant orbit, or shall we say that "happy is the class that has no history."

JOHN W. HALL, Secretary, 8 Hillside Street, Roxbury, Mass.

'94

The gist of news coming from the Secretary during the past few weeks has been a meagre one. In the early part of October he attended the meeting of the Public Health Association at Buffalo, and encountered there

H. N. Parker from Jacksonville and finds his time fully occupied in handling the problems pertaining to water supply, milk supply and other aspects of bacteriology and general sanitation in this thriving city of the south. Unfortunately there were very few lulls in the busy program, so that opportunities for reminiscence were not extensive. R. S. Weston of Boston was also in attendance at the meeting. The Secretary combined the trip to Buffalo with one to Pittsburgh in connection with some experiments on a new process of milk treatment by electricity. The time spent at Pittsburgh was so brief and so fully occupied that no opportunity was presented to hunt up the '94 men in the city, although the Secretary much desired to do so. Shortly before this excursion, another one to Rochester in connection with some consulting work gave an opportunity for a brief telephone conversation with Frank Lovejoy, the President of the Class, and Vice-President of the Eastman Kodak Company. (Note the order in which the official capacities of this gentleman are listed.) At that time mutual promises were made for an early meeting in connection with the dormitory proposition, but unfortunately this meeting has not been held, as the Secretary has not found it possible to make another visit to the kodak city. It is to be hoped, however, that '94 men are everywhere interested in the dormitory project and are keen to make it possible for the Class to build a unit, perhaps as a memorial to deceased members of the Class.

On November 16 the Secretary went to Portland to attend a meeting of the Technology men of that city. '94 was represented by E. M. Hunt, the City Engineer, and as always a '94 reunion was held. Unfortunately W. R. Miller, the only other '94 resident in Portland, was obliged to be absent from the city on account of business.

The Institute was fortunate to have as a guest from November 19 to 22 our distinguished classmate, Abbot. The Tech in announcing the lectures which he gave described him as America's foremost citizen. Abbot gave a most interesting lecture on November 19 on "A Life of Research," in which he depicted the pleasures of pursuing science for its own sake and illustrating this from his own experience and from events in the life of our distinguished fellow alumnus, George E. Hale, '90. On Monday, November 22, he gave another lecture in which the investigations carried out under his own direction by the Astrophysical Observatory of the Smithsonian Institute were described. In this lecture he also spoke of his long trip to the eastern hemisphere in search of a suitable location for an observatory for studying variations in solar radiation and gave very many interesting side lights on his travels which resulted finally in the selection of a mountain in Southwest Africa as the site for the new observatory. He reported that this observatory is now manned and equipped and observations will be forthcoming in a short time which will be correlated with the data obtained at the observatories in the western hemisphere, especially those in California and Chile. While he was here, Abbot was also brought into service to talk at a Faculty Club Luncheon at the Walker Memorial and gave a most interesting account of some of the events of his recent journey.

C. P. Pollock, now consulting engineer in New York, lectured at the Institute on November 29 on "Street Paving Construction."

News from the field seems to be somewhat scanty and the Secretary would urge all members of the Class who read this to send him at once interesting news items about themselves or any other members of the Class with whom they have come in contact in recent months.

Samuel C. Prescott, Secretary, Room 10-405, M. I. T., Cambridge, Mass.

Books 20

Continued from page 174

held down to compulsory accumulation of historical facts and the desire to read history in one's leisure time as a source of mental stimulation and pleasure.

This book will appeal to the alumnus-reader who has a dim recollection of having heard that there was an historical character named Metternich but doesn't quite know whether he was an Austrian or a Pole; or who knows that France has been under a government called the Third Republic for many years but hasn't any idea when or how the First or Second Republics had their being; or who thinks "The Sick Man of Europe was a glib nickname for the Sultan of Turkey; or who may have heard that Bismarck provoked a war by doing something with a despatch known as the Ems Telegram but isn't quite sure whether he faked it or suppressed it nor just what countries were thereby embroiled; or who confuses (as did one this reviewer met last fall) the "Charge of the Light Brigade" with a skirmish in one of the Balkan Wars; or who is hazy, if not downright ignorant, on other points, — and who is possessed with the desire for an opportunity to clear up his doubts if he can do so without too much trouble. For him Professor Davis has provided the means.

It is too bad that there seems to have been haste on someone's part to get the book quickly into circulation, for the proof reading of the latter chapters (although the early ones are by no means spotless and contain at least one bad blunder) bears evidence of having been done in a very careless manner.

H. E. LOBDELL, '17

Miscellanea

CIVIL ENGINEERING SPECIFICATIONS AND QUANTITIES, by G. S. Coleman and G. M. Flood. \$3.75. xv+282 pages. London: Longmans, Green and Company.

The authors of this book, members of the faculty of the University of Manchester, give broad treatment to the legal, managerial, economical, and engineering aspects of civil engineering estimates and contracts. It is, of course, based upon British practice.

HYGIEIA, or Disease and Evolution, by Burton P. Thom. \$1.00. 101 pages. New York: E. P. Dutton and Company.

Another title in the Today and Tomorrow Series. It sets forth the somewhat obvious thesis that disease is an element in biologic evolution.

PRINCIPLES OF ECONOMICS, by O. Fred Bouche. Volume I, \$5.00. xii+565; Volume II, x+520. New York: The Macmillan Company.

A thoroughgoing modern treatment of economics. It will appeal to the scholarly or ambitious lay reader.

Solving Sewage Problems, by George W. Fuller, '90, and James R. McClintock, '06. \$6.00. ix+548. New York: McGraw-Hill Company, Inc.

A manual on modern practice in the disposal of sewage. The material is comprehensive, well set forth, and aided by tabulations of data and photographs.

Mathematics for Engineers, by Raymond W. Dull. \$5.00. xvii+780 pages. New York: McGraw-Hill Book Company, Inc.

A lengthy compendium of practical mathematics. No conversion, logarithmic, or trigonometric tables are included, and the index is scanty for a reference book.

News from the Classes

'95

It may be needless to refer to the curtailed report of '95 Class News in the December Review, but your Secretary has a conscience and a word of explanation may suffice.

Having labored continually throughout the summer months, a full-fledged vacation was earned and the month of October was devoted to a long auto tour through New England, New York, New Jersey, Pennsylvania, West Virginia, and west of Chicago and return.

The lure of the open road, covering several thousand miles, became so fascinating that it was impossible to return in time to collect data for the December issue. The trip through ten states was immensely enjoyed, being profitable both as to business and health. It has supplied reserve strength and enthusiasm which is hoped may last through the following issues of this year's Review — so look out!

We note with great pride and satisfaction that Gerard Swope has been chosen as the new member of the Institute Executive Committee. Mr. Swope was elected a life member of the Corporation in 1923, and his selection as a committee member to succeed Frederick P. Fish (resigned), will bring to the committee his wide experience and sound judgment in administrative affairs, gained from his many fields of action

Your Secretary has just received a copy of the Report of the Giant Power Survey Board as made to the General Assembly of the Commonwealth of Pennsylvania. This is an outline survey of the water and fuel resources available in Pennsylvania as regards the most practical means for their full utilization for power development and other related uses. It is a most comprehensive analysis, and presented in a practical as well as technical manner. Judson C. Dickerman is Assistant Director in charge of the survey and will be glad to furnish a copy to any '95 man who may be interested. Address him at Box 349, Harrisburg, Penna.

Professor Elizabeth F. Fisher, head of the Department of Geology and Geography in Wellesley College since 1908, has retired under the provision of the Carnegie Foundation as Professor Emeritus.

Not having heard for a long time from our own Jack Dorrance we are glad, however, to quote in part from an editorial in the Boston Transcript of November I, entitled "The Flapper in Industry," referring to the very commendable action of his daughter Elinor. "In this instance, she is Elinor Dorrance, daughter of Dr. John T. Dorrance, head of the Campbell Soup Company. The young woman has entered the factory at Camden, N. J. She is peeling tomatoes, receiving in return for her work, thirty cents an hour. She has made the acquaintance of the time clock. If she does not punch it at the appointed hour, her pay will be 'docked.' Her father says he is not her boss. She is subject to the orders of subordinates, as are the other girls who peel tomatoes for thirty cents an hour. But Mr. Dorrance doesn't conceal the fact that he is pleased at daughter's desire to learn all branches of the art of canning soup. He says: 'I see so many flapper daughters today whose only thought seems to be teas, dances, drinks, cigarettes and theatres that I think a girl should be given lots of credit who really wants to work.'

"The remark contains a large element of truth, but it is probably fair to add that there are a great many girls who are doing useful work from choice rather than necessity. Not many of them, however, will inherit multi-millioned fortunes, and consequently their names are not in the news of the day. Perhaps it is unfortunate that more is not heard of them. If we must tolerate that exceedingly objectional word 'flapper' why not broaden its meaning and let the flapper in industry receive recognition as well as the flapper whose abounding energies find expression in ways more familiar, the familiarity now and then, but only now and then, being of the kind that breeds contempt?"

We announce the marriage of Olivia Le Bosquet, daughter of Mr. and Mrs. Maurice Le Bosquet, to William Harrison Rice of Lihue, Kauai, Hawaii. The ceremony was performed at the Little Church of Flowers, in Glendale, Calif., on Saturday afternoon, at 5 o'clock, September 4. Mr. and Mrs. Rice will make their home in Hawaii,

LUTHER K. YODER, Secretary. Chandler Machine Company, Ayer, Mass. Of the entire Class, Dr. Coolidge continues in the limelight on account of the publicity given to his new cathode tube. He must be getting many a chuckle over the pictures which have appeared of him if he subscribes to a clipping bureau. In the Boston papers alone are two pictures that have appeared, one in the Boston Traveler of October 30 and one in the Boston Sunday Post of November 14. In both of these no likeness to Dr. Coolidge can be found, since both portray a young chap whom age has hardly touched. It is true that Coolidge is about

pictures that have appeared, one in the Boston Traveler of October 30 and one in the Boston Sunday Post of November 14. In both of these no likeness to Dr. Coolidge can be found, since both portray a young chap whom age has hardly touched. It is true that Coolidge is about the youngest looking member of the Class today, but he would have had to discover the fountain of youth in order to be the young man shown in the newspaper cuts. Some of his friends have inquired if the effect of his new tube is to rejuvenate men, and expressed the desire to participate in the rejuvenation in case it was an actual process.

In marked contrast to the alleged photograph of Coolidge is the speaking likeness of George Burgess which appeared in the American Magazine for December, in connection with an excellent story of some of the wonderful things that are being done in the United States Bureau of Standards at Washington under the direction of Burgess.

Bradley Stoughton made a trip to Butte, Mont., in October, where he testified as an expert witness in connection with the litigation on the Carson metallurgical patent. This case is one of the most important metallurgical cases of recent years, and very large sums of money are involved. Announcements are just out of the publication by McGraw-Hill Book Company of a new book entitled "Engineering Metallurgy," being a text book for users of metals, by Stoughton in coöperation with Professor A. Butts of Lehigh University. This is the first volume of a

new metallurgical series.

Jacobs journeyed to Boston from Vermont in November and gave the Secretary a vivid personal account of his year's trip through the west. He summed the whole matter up by saying that it was a wonderful trip by auto which he would not have missed, but that he has no desire to repeat it. After fighting his way through western mud and clay where a car pursued its own course without regard to the position of the steering wheel; after going over the mountain passes where a car coming in the opposite direction would be met occasionally, and it was necessary to crawl inch by inch with the prospect of going over into the canyon if he went an inch too far to one side, he had good

reasons for not wishing to repeat it.

The reunion moving picture films are now in the hands of the Secretary who could hardly wait to have a preview of them, and he found them very satisfactory. These represent the combined work of the Schenectady bunch along with Tozier. Stearns did a lot of work in cutting apart, pasting together and taking care of all the mechanical operations necessary to this work, including the building of a little spyglass arrangement making it easy to see where one view left off and the other one began. Coolidge and Baldwin sat in as hefty consultants and critics on this work, and as Baldwin states so eloquently, of course Tozier is due for the thanks of the Class in seeing that the Eastman Kodak Company took proper advantage of its opportunity for commemorating so extraordinary an occasion. These films are not adapted to a standard machine but can be run on any kodascope projector such as forms a part of the outfit which the Eastman Company has put out in connection with its moving picture cameras for amateurs. In addition to showing these pictures in Boston, the Secretary is prepared to send them to any group of men in any place who are eager to see them and who have the proper projector to show them.

Our classmates may not have noted that we again have the honor of having Paul Litchfield elected as a term member of the Technology Corporation for a period of five years. This is the second term and apparently he did such a good job before that the Corporation wel-

comed the opportunity to have him sit with them again.

Eddie Mansfield has been doing things of late, some of which were reported in recent issues of Edison Life, the magazine published by the Edison Illuminating Company of Boston. He attended in September, at Poland Springs, Maine, the convention of the National Electric Light Association, New England Division, and served as Chairman of the Transportation Committee, and is also Chairman of the Educational Committee. This necessitated two reports by him. This convention was a delightful affair. We all remember that, even as a student, Eddie was famous for his command of language and it is not surprising that with age he is stressing the necessity of speaking and writing English correctly, as evidenced by his appeal in Edison Life for better training of young men in English so that they can write a decent letter and make a proper address before a gathering. It is not surprising that he should be selected by the Edison Company to assist

in the arrangement of this season's educational classes for Edison employees. The scope of these classes is broad, including health, hygiene, accidents, budgeting, and company organization. Here is where Eddie comes in, including also effective speech, correct English, and penmanship. The result of all this is that the Edison Company has created a new bureau entitled "The Educational Bureau" and has put Mansfield at the head transferring him from his former job of Superintendent of the Operating Bureau. This represents the culmination of his continued employment since 1896 with the Edison Company, with the exception of one year's absence. In addition to the position of Superintendent of the Department of Operating Bureau of Accounts he has been Chairman of the Educational Committee of the company which has built up a constructive system for the benefit of the employees and has also at different times been head of the Correspondence Division, in charge of the real estate of the company, head of the Statistical Division, and in charge of the Electric Vehicle Division which was successfully built up by him personally.

Fred Damon journeyed to Ashland, Ky., for a week in July, ostensibly to call upon a customer, the Ashland Leather Company, but the trip coincided with the week of the Kentucky Derby which was probably the real reason for the trip. Fred also attended the meeting of the Tanners Council in Chicago in November. This council meets twice a year, the spring meeting being always in New York. Damon and Rockwell and Joe Driscoll met on the golf grounds more or less during the summer, but no reports have been given out of the results of the game. Walter Coristine has given up his home in Framingham and moved to Brookline where he will remain for the winter, and probably

locate premanently.

Lambert (Jim) Whitney broke away from business the middle of August and with his wife made a two months' pleasure trip to Europe. He claims that the Scottish Lakes were the finest things he saw, but his wife differs with him and insists that the Paris shops excell all other European sights. Harry Brown reports that he finds plenty to keep him busy at his home in Winchester, even though he is no longer actively engaged with the General Electric Company. He says that having a daughter in Wellesley is no snap and that his consulting work takes considerable time, so that altogether life is moving along very satisfactorily with him. The Secretary tried to find out from Bob Davis something about the Waltham crowd, but about all he could learn was that Hartwell was traveling back and forth every day to his job in the city and was very active in church work, and that Davis saw Sanderson frequently on the train and that Sandy was just as young looking as ever.

The Alumni Dormitory Committee is asking what the Class of '96 is planning to do towards a dormitory. This matter will come up for discussion at our next Class meeting in Boston in the near future, but in the meantime it is hoped that classmates will be thinking of the matter, that they may come to the meeting and express their views. Classmates at a distance who have concrete views on the subject should pass them along by letter to the Secretary. It is unnecessary to go into the details of the plan because it has been announced in pre-

vious Reviews and is also reported elsewhere in this issue.

CHARLES E. LOCKE, Secretary, Room 8-109, M. I. T., Cambridge, Mass. JOHN A. ROCKWELL, Assistant Secretary, 24 Garden Street, Cambridge, Mass.

'98

During the past summer Lester Gardner has been studying the air routes of Europe and has flown some twenty-one thousand miles, covering all corners of that continent and going over the edges into Africa and

Asia, visiting even the Sphinx, the Holy Land and we believe he

mentioned landing in the Garden of Eden.

Seth Humphrey's new book, "Loafing through the Pacific," is being published by Doubleday, Page and will appear during the winter. It is a record of his fifteen months' recent trip which included Samoa, the Friendly Islands, Hawaii, the Fiji Islands, New Zealand, Australia, the Philippines, China, Korea, and Japan. Seth is planning to start out again in January, this time to go to Cape Town and spend a year gradually working north through Africa.

George Treat is now the head of the banking house of E. H. Rollins and Sons. — John Stearns Bleecker has sent a card announcing the removal of his office as Industrial and Public Utility Consultant to 910

Finance Building, Philadelphia.

ARTHUR A. BLANCHARD, Secretary, Room 4-160, M. I. T., Cambridge, Mass. As the ink dries, Thanksgiving Day is but a few hours away and our thoughts turn to Louis Crowell, the Cranberry King of Cape Cod. At least he was the king a year ago and we hope that he is still pushing the Eatmore Cranberry Club, although we have not as yet received any visible proof of the fact. Don't forget, Louis, that the proof of the pudding is in the eating and sins of omission may be atoned for as late as Christ-

Fred Cooke will, in all probability, have to go without cranberries also, for he is down in Port-au-Prince, Haiti, as L'Ingenieur en Chef des Travaux Publics. The Secretary knows this is the job for he copied it directly from the letterhead, and chef and cook mean the same thing. Just now he is re-establishing an engineering school and, taken as a sideline job, he reports that it is most interesting. We are glad to learn that this human dynamo is finding load enough to hold him down. He especially invites members of the Class who may be strolling through that country to take advantage of his dangling latch string.

Mortimer Silverman is now associated with Homer Loring, Chairman of the Executive Committee of the Boston and Maine Railroad, and we shall soon expect a hump in that company's efficiency curve. Through Mortimer we learn that Warren Edson is now head of the Smoke Inspection Bureau at the State House, Boston. We had lost sight of Edson temporarily but we will now proceed to smoke him out.

Jim Batcheller arrived back in Oregon wilds safely, but his trip west did not duplicate his trip east which we chronicled in the last Review. It rained incessantly for fourteen of the fifteen and one-half days occupied in the return trip and auto going was very heavy. Twice he was obliged to make detours of over 100 miles in order to dodge mud areas in Iowa and Nebraska. He also had the fun of crossing the Cascade Mountains in a howling blizzard and ten inches of snow. Nevertheless, he reports a splendid trip and no untoward accidents.

Rawson Collier notes that he saw John Porter when he was recently in New Orleans. John has his nose so deep in that city's sewer and water works that he can't detect the breeze that is stirring the historical leaves of old aughty-aught. Won't somebody page him and tell him we want to know how he likes life. We are sure he is very much

alive, — always was, and will be.

And now we have come to the bottom of our editorial barrel. Nothing remains but an account of Bowditch's summer travels and the Secretary's trip to Europe. Inky hasn't written his as yet, so you will be forced to read of the latter, or else stop where you are. For simplicity and directness, please pardon the spinning of the tale in the first

person singular.

My trip was a combination of business and pleasure, the former being in the nature of visits to certain German hydraulic laboratories for the purpose of ideas and inspiration. I landed in Liverpool and immediately went up to London where ten days were spent in very active sightseeing. The Abbey, Parliament, St. Paul's, Buckingham Palace, The Tower, and a score of museums and art galleries gave one opportunity to keep continually on the go. Outside the city, Hampton Court, Windsor Castle, Eton, Stoke Poges, Warwick Castle, Kenilworth Castle, Stratford-on-Avon and Oxford furnished thrills alone sufficient to repay one for making the Atlantic crossing. From London I flew to Paris on one of the ships of the Imperial Airways. Twenty passengers and their luggage, in addition to the two pilots gave us a total weight at take-off of 22000 pounds. The trip was wonderful, commencing in a heavy fog and drizzling rain, but ending in a glorious sunshine that accompanied us all the way from the Channel to Le Bourget, the air port of Paris. The air was fairly smooth but over England we flew at 3000 feet altitude in an effort to obtain visibility. Even then the fog was so thick that we could not at times distinguish the wing tips.

Paris was magnificent with its Seine, Champs-Élysées, Arch of Triumph, Louvre and George Gibbs. I found George in his office at the American Pro-Cathedral on Avenue George V. We had a fine time together, especially as George could speak the lingo and keep me from ordering veal when it was steak I wanted. A week was spent in Paris, visiting its historic buildings and making excursions to Versailles, Malmaison, Fontainebleau and Sèvres. It was all too short a time to give to so beautiful a city, but a long trip was ahead and I hurried to Brussels, sometimes spoken of as Little Paris. The trip was through the battlefields of Northern France and in places evidence of the great war was still visible. Brussels was delightful and no traveler should leave it out of hisitinerary. Within easy striking distance of the city lie the Battlefields of Waterloo, historic Ghent and Bruges, while north on the coast is beautiful Ostend with its attractive beaches, and — casino.

Sleepy little Bruges with its canals and belfry towers will always be a pleasant memory. From Belgium the route lay through the lowlands of Holland to Amsterdam — funny Amsterdam with its canals, ancient façades, lace caps and wooden shoes mingled with the latest make of American automobiles and creations of Paris. I surely did enjoy Amsterdam. One of the sights to be enjoyed is furnished by a steamer-trip over the Zuyder Zee to the Isle of Marken, where the traveler finds a quaint village peopled with still more quaint fisherfolk who dress and live after the manner and custom of 400 years ago. The Royal Museum is rich in its collection of Dutch painters and Rembrandt's Night Watch is often declared to be the world's greatest picture. I cannot endorse this as I have many pictures yet to see, but I place Raphael's Sistine Madonna at the Dresden Art Gallery at the head of all I have seen.

From Amsterdam I journeyed to Cologne, but let that be another story, for I know this is somewhat wearying to you and I may at another time be as badly in need of copy as I am now.

GEORGE E. RUSSELL, Secretary, Room 1-272, M. I. T., Cambridge, Mass.

Plethoric with the good cheer of our formal New England holiday, your Secretary takes up the congenial task of suppressing information about the other members of the Class. My latest communication, however, calls for transmission.

Mort Foster has just written in to say that the Class baby, born in August 1902, has a sister and two brothers and that conjointly there are two grandsons as well. I have a suspicion that one of these is probably the Class grandbaby, if there be such an office. If not, I hereby constitute it, and would hereby request information from any fond grandparent prepared to contest the priority claim of Mort's oldest grandchild. Incidentally grandpa is with Miller, Franklin and Basset, who are industrial production and management engineers carrying on investigations for banking houses. They also, I gather, are concerned with the financing of new projects. Reverting for a moment, those of us who enjoyed Mort's society at the Twenty-Fifth Reunion will find it hard to square his grandparental status with his juvenile activities on the golf links. More than that, he is one of the members of the Class who has retained his figure. Those who have assumed the rounded curves of an Oriental opulence are not to regard this comment as a personal disparagement.

Harry Dart writes in from Hartford. He is chief engineer of one of the companies there, but states that the title is a misnomer as he is in charge of the statistical department and is chiefly concerned with the establishment of rates for the insurance of various forms of power

equipment.

John Boyle, as was recently stated in these columns, is a patent attorney in Washington. His work there involves both the investigation of questions of validity and infringement, in the preparation and prosecution of applications and involves conduct of suits in the Federal courts. His practice is a general one along these lines but emphasis is laid on chemical and metallurgical processes. John coyly confesses to three children, two boys and a girl, the combined ages of which just exceed thirteen years. John re-established contact with the Class at the time of the Twenty-Fifth Reunion, and finding his erstwhile associates to be unexpectedly companionable, is planning to repeat on the occasion of the Thirtieth, because that is the target at which we are now shooting, and by beginning now we can insure a busier, brighter, and better gathering, and that will be going some.

D. L. Ordway is with the National Carbon Company in Cleveland, Ohio. He writes as follows: "I am in the works manager's department. My work has to do with the maintenance of the quality of the product, which means writing specifications for raw materials and unifying manufacturing processes at the various plants. I squawk to our suppliers when they don't meet our specifications and I squall to our works when their product does not test as high as it should. Beside my all consuming interest in supplying you with the best dry cells and radio batteries which can be made, I spend more or less energy on the following lines: Walking, mountain climbing, chess playing, geology, finance, and history." I should like some of you lads who lack Ordway's catholicity of taste to review that modest little outline. Finance, of course, is a common interest in every sense of the word and probably the only one of the six upon which I can not speak as an expert. I thought I could until Willard Dow gently corrected my error. Since then I have allowed my bank to do it for me, contributing a gentle patience to their complaints of overdraft. Now take history. How few

of you are really interested in that branch of human knowledge except as it relates to your blotter record for infringements of the motor vehicle laws? How many of you are thrilled at the thought that the late well-known Queen Elizabeth was known as the Virgin Queen and got away with it? How few of you have burned the 3 a.m. incandescent in your pursuit of the origins of the League of Nations? Granted that some of you have participated in the movements which engendered the Volstead act and have studied the development of the rise of that common law which makes every man's home his distillery (this is an obsolete word with an earlier and poignant significance). I quote the original text and not the garbled version produced by Henry the Eighth. And geology. How many of us remember when Freddy Clapp spent days and possibly nights in handling badly made paying stones in the crypt of the building occupied by the Boston Society of Natural History, and yet it was Freddy who emerged from this drab shroud long enough to perch upon Teacup Dome, destroy the character of several estimable and patriotic gentlemen who are now preparing to leave the court without a stain upon their character, and then wing his way, to continue the metaphor, opulently through the storied East? Who of you not intimate with Roy Chapman Andrews has had opportunity to search the innermost recesses of Mongolia (San Franciscans not excepted)? Who of you have trod the pathless wastes of the southern continent in company with Wallaby and the Loo-loo bird? Who - but I could continue in this vein indefinitely - the point is Freddy has done it and Ordway seemingly aspires to do it. So Hail! fellow student of the diseases, accomplishments and sins especially the last - of pithecanthropus. The other three avocational pursuits may all without too great effort be allocated to the first. But little stretch of the imagination is needed and that, as I remember the lurid details of excuse offered to our pastors and masters in undergraduate days, must be regarded as the priceless heritage of every member of the Class.

Al Sulzer is up in New York in the town of Rochester helping George Eastman make money for the Technology endowment. It is a laudable enterprise and I think we must all feel that Al has been assiduous and in some measure successful. An additional bit of information which comes to me, however, I should suppress but for the fact that we are all friends, that my statements are confidential, and that we all knew Al in his better days. For this is the gossip. He is paying special attention to the manufacture of film products. When I see some of the shows that reach production in these days, to say nothing of those - Oh! well, let it go at artists - who produce them, my heart bleeds for our wandering boy. This much can be said for him, however, he bravely acknowledges his fault, though there is a touch of guile and subterfuge in his suggestion that Charlie Flint is in the next office and is concerned with maintenance. With Al producing and Charlie maintaining there may be some lift in the movie business, but somehow I doubt it. The only thing is as we gaze on the products of the film, men, women, and extras, we must resolutely envisage Al as we once knew him. As Cal Coolidge so frequently says, "O tempora, O mores," which translated for the illiterate may be stated as, how time has changed our manners. Indirectly from the Alumni Office I gather that everybody has paid his rent this

ALLAN WINTER ROWE, Secretary, 4 Newbury Street, Boston, Mass. V. F. Holmes, Assistant Secretary, 131 State Street, Boston, Mass.

Harold Pope is chief engineer of the Leonard Refrigerator Company of Grand Rapids, Mich. This is a division of the Electric Refrigeration Corporation. Pope reports that he is having some interesting work in design and research in the field of refrigeration. — Red Proctor is living this winter at 173 Adams Street, Milton, while his son is attending Milton Academy. — Howard Turner is with Parker Brothers, Inc., of Salem, well-known manufacturers of games. — President Nickerson had appointed a committee to make plans for the celebration of our Twenty-Fifth Anniversary next June. The Boston members held a meeting at the University Club, November 11. There were present Nickerson, Taylor, Hunter, Sawyer, Hooker, Whitney, Patch, Geromanos, Williams, Ritchie and Sherman.

FREDERICK H. HUNTER, Secretary,
Box 11, West Roxbury, Mass.
BURTON G. PHILBRICK, Assistant Secretary,
276 Stuart Street, Boston, Mass.

A very merry Christmas and a most happy and prosperous New Year. It is the profound hope of the Secretary that the former has already been enjoyed, and that the latter is in store to be enjoyed, by all his classmates, their wives, children, relatives and friends, wherever dispersed. Any classmates unfortunate enough not to possess wives, children, relatives and friends, may take a sufficient amount of the Secretary's good wishes and distribute it to suit

This is the season of the year known as "the holidays." A "holiday" is generally assumed to be a day on which one does something different from the usual routine of life's regular occupations. This assumption is probably true in many, many instances, but in the matter of preparing Class notes for this publication, there are never any holidays, for the simple reason that the process is always the same, and does not vary from the usual routine.

The routine consists in a vain agitation of the Secretary's brain in an effort to evolve something of interest to the readers, followed by a prayer that the clipping bureau to which The Review subscribes will bring forth some information regarding the members of the great and glorious Class of 1904.

The above mentioned prayer was efficacious for these notes, as it brought forth a clipping from a Lawrence, Mass., newspaper relating in detail some of the life history of our classmate Ralph

O. Ingram.

"Ralph O. Ingram, assistant agent of the Ayer Mill since its erection in 1907, has resigned his position to assume new duties as agent of the Wanskuk Mills at Providence, R. I. His new appointment makes him head of the same plant in which his father, the late James Ingram, for years agent of the Washington Mills, learned the first rudiments of the textile industry after emigrating to this country from England.

"Mr. Ingram will leave Lawrence permanently to take charge of a plant which holds a high reputation in the textile world. It is controlled by United States Senator Metcalf of Rhode Island and besides operating three hundred looms, it has spinning and preparatory equip-

ment of fairly large proportions.

"The new agent of the Wanskuk Mills was born in Wanskuk, R. I., in 1882, and came to this city as a child. He received his preliminary education in the local public schools, being graduated from the Lawrence High School with the Class of 1900, later entering the Massachusetts Institute of Technology from which he received his degree in 1904.

"His first position was that of treasurer of the Shaw Machine Company of Lowell, which duties he fulfilled until becoming connected with the American Woolen Company at Providence, R. I. He remained there several years when he returned to Lawrence and became agent of the Prospect Mills, later being advanced to the Ayer Mill post.

post.
"In 1907 he married Miss Constance Albee of Oshkosh, Wis., and they have two children, Miss Elizabeth Ingram and Robert Ingram. Prior to removing his home to 39 Salem Street, Andover, about fifteen years ago, Mr. and Mrs. Ingram maintained a residence at 96 Knox Street.

"He has membership in Grecian Lodge, A. F. and A. M., and the Merrimack Valley Country Club, and is also a director and chairman of the finance committee of the Young Men's Christian Association. While his departure from this section is regretted in social and textile circles, news of his advancement to his present fine position is pleasing to his wide circle of friends and acquaintances."

That holiday stuff keeps returning to the mind of the Secretary, particularly that idea that a holiday is a day when one does something different. Now, any one can make a holiday for himself by that simple process. No act of Congress or State Legislature is needed.

Just do something different.

Now don't stop reading at this point and toss the magazine aside, because the most important thought is just ahead. All that any reader of these notes has to do, to create a most profitable holiday for himself and many of his friends, is to sit down now and write a few lines to the Secretary about any subject whatever. Heavens knows that such an act would be something different from the ordinary routine of any classmate's life, and that the day on which it is done should be declared a holiday. Think it over.

HENRY W. STEVENS, Secretary, 12 Garrison Street, Chestnut Hill, Mass. Amasa M. Holcombe, Assistant Secretary, 3305 18th Street, N. W., Washington, D. C. A survey of the Philadelphia district is provided through the efforts of Claude Anderson, one-time President of the Technology Club of Philadelphia. In writing his report, Andy has gone to some pains to provide interesting and copious copy for the Class column and we ex-

press our appreciation and thanks. The report follows:

"There is little of a startling or scandalous nature. You have told of Chesterman's transfer to Pittsburgh in the Bell Telephone shake-off. The Class certainly misses its probably brightest light here, but we all

congratulate F. J. on the signal honor accorded him.

"I have just returned from a vacation trip to Canada, returning via Cleveland where I looked up Herman Eisele. Herman is just as snappy as ever, doesn't look a day older than in '05, still is following the profession of 'Make-a-nickel' engineer and apparently is successful at it. Only my unexpected appearance at his office prevented a feed on wiener, schnitzle and hassen pfeffer.

"W. W. Ammen graced the meetings of the local Technology Club for several years, but early this year he packed his lares and penates and departed for the larger fields of endeavor in New York. He had been following patent law here and many imaginary legal technicalities among the alumni were ironed out under his direction.

"W. H. Blakeman, who practiced Naval Architecture probably more consistently than any one in the course, here with Cramp's, then with the Shipping Board during the war, has finally fallen for the insurance game. But he has a good job in charge of the Baltimore office of the Equitable Life Insurance Company. Blakeman's side kick, Paul Ralph, had been in Philadelphia quite a few years representing the Morris Machine Works, but about one year ago he retired as an agriculturist, specializing in the raising of fancy chickens of the feathered variety at R. F. D. No. 1, Pennington Avenue, Trenton, N. I.

N. J.

"I have given up trying to interest 'Father' Sid Caine in affairs technological. He is rector of a church in Roxborough, a suburb of Philadelphia, and can be reached by addressing the Reverend S. Atmore Caine, 5720 Ridge Avenue, Roxborough, Philadelphia, Penna. The last time I saw Sid was on the street here a few years back, at which time he had acquired some good looking gray in his hair and

more avoirdupois altogether becoming.

"'Piggy' Bartlett is, and for probably ten years has been, the chief chemist at Campbell's Soup Company in Camden and normally should be an ardent Technology man, but a growing family and 'affairs de soup' claim most of his time. I stop in to see him infrequently and enjoy settling with him big problems that will never be settled satisfactorily to anybody else.

"Hiram 'Roy' Walker is still with the Lanston Monotype people. I believe his position is manager of technical publications. He was for

one year President of the local Alumni Association.

"Concerning myself, I am still living with my first wife and children and still maintaining my 'vine and fig tree' out of the profits of the Illinois Electric Ventilating Company of Chicago. As I have acquired a fair financial interest in the company, it begins to look as though I shall continue with them for some time. We (the company) have broken into the million dollar rating and are growing at a pleasing rate."

Nat Richards, Vice-President of Purdy and Henderson Company, Engineers, New York, Havana, Montreal, makes it rather brief with: "My older daughter completed her first year in college in June. In a business way, one of our recent high spots is the contract for the Na-

tional Capitol of Cuba in Havana, recently awarded us."

The frigate Constitution will shortly go into dry-dock at Charlestown for complete reconditioning under the direction of Captain Clayton M. Simmers, C. C., U. S. N., who has been in charge of construction and repair at the Boston Navy Yard for several years. Another XIII-A man, Captain R. D. Gatewood, manager of the Shipping Board's Maintenance and Repair Division, spoke before the Jersey Marine Club of Hoboken in October. The sad condition of American shippards through lack of orders was one of the stirring themes of the address, according to a New York paper.

Forrest Sprague has left the Endicott Johnson Corporation of Endicott, N. Y., where for some time he was chemist of their tannery, and is now with the Deford Company of Luray, Va. He writes: "Last fall I spent a few months in Chihuahua City, Mexico, instructing a company there in the art of making sole and many other kinds of

leather.

"The City of Chihuahua is at an altitude of 4000 feet and the climate is, in my opinion, very poor. It is either too hot or too cold. For instance, the month of October was extremely hot and to venture out

of the shade at noon was to invite a sunstroke. By the last of November the temperature was far below freezing and living was very uncomfortable, due to the well-known Mexican idea that it is not well to use any artificial heat.

"The cost of living in Chihuahua is very high, because of the high tariff which they put on imported necessities, often carried to the extreme of levying 100 per cent duty on an article which is not manufactured in Mexico. A pair of shoes retailing at \$5.00 in the States brings 20 pesos or \$10.00 there. With wages as low as 2 pesos, or \$1.00 a day, it is easily understood why the peon is always ready for a revolution.

"I returned to take a position as chemist with the Deford Company, manufacturers of sole leather and belting butts, with tannery, chestnut wood extract plant and laboratory at Luray, Va., and another tannery at Covington, Va. Luray is a fine town and noted for

the Luray Caverns."

A new address for A. C. Dickerman indicated that something important had occurred but it wasn't much — only that his landlord asked him to leave his Saylesville, R. I., house so he moved to Pawtucket, 78 Maynard Street. Dick is still engineer for the Sayles Estate and manager of a water company supplying part of Providence. He says: "This water works job has given me some concern, trying to make a dollar act like a dollar and a half. I hope that one more decision by the Supreme Court will be favorable and our days of spending money for plant operation faster than the customers bring it in will be over." But Dick seems to be more upset by the fact that he cannot yet break 100.

From the Boston Transcript: "Charles R. Boggs, who sailed from Boston on November 7 for a two months' stay in Europe, goes first to London, where, on November 23, in response to an invitation received a few months ago, he will present a paper before the Institution of the Rubber Industry in London. Mr. Boggs, who is factory manager of the Simplex Wire and Cable Company of Cambridge, will have for his subject 'Selenium in Rubber Compounds,' giving the latest information regarding the selenium method of curing rubber compounds, of

which he is the inventor."

Louis Robbe is with the Board of Transportation, 49 Lafayette Street, New York, after some years with the New York Board of Water Supply building the great dam of the Ashokan Reservoir. According to one of the New York papers, the dam leaks and Louis may have to go back and patch it up. - Harry Gabriel, who was with the New York Central Railroad has a new address, New Jersey State Highway Commission, 921 Bergen Avenue, Jersey City. — We received quite a shock when we saw a Sound Beach, Conn., address for Norman Lombard and we don't know yet whether he was on a summer vacation or is competing in the east with Raymond E. Bell in management counsel. Ray, by the way, in addition to his consulting services, control systems, personnel, cost control, merchandising, and so on, found time to write a story for Women's Apparel Merchant with some pretty graphs. - John Glidden seems to have left the Hippodrome, Lima, Peru, and moved to Miraflores, Avenida Pardo 233. -Hill got back to his office in November after a six months' illness. W. H. Lalley changes his address to the Detroit Athletic Club, De-

A characteristic note from Andy Fisher says: "I don't know a thing except that Bob Farrington has a boy, making a girl and a boy. Bob McLean seems to be looking great. Cape Cod has been doing us both a lot of good. Percy Goodale and Prince Crowell have summer homes in Falmouth. Percy must be becoming wealthy because he rented a house to a friend of mine who must have paid him at least \$500 for August. Isn't it awful the way brains develop in some of these birds after they leave Technology? I saw Harry Donald recently and he is busy. Tower has gone into the insurance game, too. Even at that Charlie Johnson isn't worrying."

"M. I. T. Chemical Dean." So goes a head line in a New York paper reporting the fact that Dr. Lewis was on the stand as an expert for the defense in the government's suit against the Standard Oil Company of Indiana and forty-six other oil companies accused of pooling gasoline 'cracking' process patents. The extraordinary thing about the trial is that, although the previous witness had been in the stand for fifteen days, the Chemical Dean got through in two hours. Dr. Lewis has probably done more witnessing than any member of the Class. His maiden effort, at the trial of the unlucky Boston cops, was one of his greatest successes, a freehand likeness of Dr. Lewis appearing next day on the front page of the Boston Post.

From Earl Weaver who is living at 974 Morada Place, Altadena, Calif.: "Absolutely the only Class item I have heard is one from

Oregon, that our good classmate, Will Clarke, has fallen for golf and is real serious about it. As for myself, I am still following building construction work, but a little more on my own behalf, and enjoying on Saturday afternoons some of our good Coast football games."

The first classmate to visit your Secretary in Middletown, Elmer Wiggins, drove in the day of the Amherst-Wesleyan football game. You may remember that he was at Amherst before coming to Technology and it seems that he played on the football team there. We made the mistake of conducting Elmer to the Wesleyan side and when Amherst made good runs, and they were frequent, he couldn't be restrained and they nearly put us out. He was driving a nifty Locomobile Eight which he uses for long trips. For shorter runs he takes his Cadillac and reserves a third car for his five daughters to drive. So you see the celluloid business is holding its own.

Roswell Davis, Secretary, Wes Station, Middletown, Conn. S. T. Strickland, Assistant Secretary, 20 Newbury Street, Boston, Mass.

The following with apologies to "Briggs": If Class notes are due and you have nothing to write but you think you will write something just to let the Class know you survived the big writeup in the previous issue, and then a letter arrives, you open it, and find it is from Harold Coes and it gives you something to put into The Review, Oh boy! "It's a grand and glorious feeling." Following is Harold's letter:

"I read with great interest the Class notes in the last issue of The Review, and regret that I was unable to be present at the Twentieth Reunion. I had all plans made to attend the Reunion but, unfortunately, business appointments that had been made previously were cancelled, and as a matter of fact I was in the east and was in Boston about a week or ten days after the Reunion. You were out of town and I had lunch with Ned Rowe. He told me all about the big doings and showed me kodak pictures. I certainly would have liked to have seen some of my classmates whom I have not seen since graduation, and regret that I was deprived of the opportunity.

"I had quite a thrill in Detroit recently when I found I was on the

Program the same day with Dr. Stratton. We both spoke before the United Typothetae of America. I had not seen the program in advance and when I landed in Detroit in the morning found that I was to speak in the afternoon. Dr. Stratton delivered a most excellent address.

"According to my present plans I expect to be in the east the week of December 6 and in all probability will be in Boston the latter part of that week, or the first of the week following, and hope to have the opportunity of seeing you at that time.

"I tried to see Charley Howard when I was in New York about a month ago, as I understood he had returned from Germany or Austria, or wherever he had been, and I was told he had returned and gathered up his family and gone back to the other side again, so I did not see him. I have not seen him now for about a year and a half or two years. I think he is busy placing bond issues on German industries."

A recent number of the Engineering and Mining Journal states that Paul Lincoln, '06, of Salt Lake City, Utah, has gone to London, B. C., to superintend the development of Noble 5 Mine which he has under lease. — Early in November the Secretary went to New York and back on the same train with Ralph Patch. Ralph has quite recovered from his appendicitis operation and is busier than ever with his numerous activities.

The Secretary has heard rumors to the effect that George Furness is acting as announcer during some of the Ever Ready Hours which are broadcast through the chain of stations connected with WEAF. If we are not mistaken George was on the air on the night of November 23, and we'll say that McNamee and Carlin had better look to their laurels if George continues to perform as he has in the past.

The Bell Telephone Company of Penna., has recently re-organized, the large company splitting up into several smaller companies. As a result of the change, Percy Tillson has been transferred to Harrisburg where he is now equipment engineer of the company operating in Western Pennsylvania.

The following changes in addresses have been received from the Alumni office: S. C. Wolff, I, care of C. O. Barton Co., 2108 Washington Blvd. Bldg., Detroit, Mich. — Capt. J. A. Root, III, 34 Spring-

field Street, Watertown, Mass. Jimmie is in Boston taking up special work at Technology. — George M. Henderson, Casilla 21, Copiopo, Chili, S. A.

J. W. Kidder, Secretary, 8 Harrison Avenue, Boston, Mass. Edward B. Rowe, Assistant Secretary, 11 Cushing Road, Wellesley, Mass.

Plans for the Twentieth Reunion of our Class are progressing. The date is June 16 to 19, 1927. The first meal together will be Thursday evening, June 16, and the final gathering around the festive board will be Sunday noon, June 19. What a fine week-end opportunity! You men near Boston, note that Friday, June 17, is a local holiday and that Saturday, June 18, will be a quiet day for business so you can get away for three days without encroaching on your business affairs.

The place and the question as to whether wives will be included or not, are not decided upon at the time of writing these notes, but you will be kept informed. The main thing now is to save these dates. John Frank of Chicago, who is doing some fine boosting of the Reunion by personal letters to many of our classmates in the Middle West, suggests that we ought to have not less than one hundred men back. Why not? He hopes to have enough men coming from the west so that they can run a special car from Chicago.

Harry Moody of Philadelphia and Clarence Lamont of Boston are also doing some fine personal work in communicating with their friends in the Class. We have heard from several fellows who have not usually been at our reunions, stating that they will surely plan to be on hand. They are Earle Whitney of Portland, Ore.; Stud Leavell, Parker Dodge, Stuart Godfrey, now at Memphis, Tenn.; Carl Bragdon, Martin Eisenhart, Harry Burhans, Henry Loring and Clarence Howe. Here's a great nucleus! Let it grow and grow!

Harold Wonson, our Assistant Secretary, has been doing some fine work recently writing to some of our members from whom we have heard little, asking for news. The result of his activity is that we can publish more interesting notes than we have had for many months. You will surely enjoy reading these letters and news items. Let us have similar letters from you about yourself.

The first letter is from Kenneth G. Chipman, whose letter-head reads Department of Mines, Geological Survey, Ottawa, Canada. He says: "Permit me to assure you that I have not mysteriously disappeared or anything of that sort. My address has not changed in more than eighteen years and there does not seem to be any reasonable chance of there being any change for some time to come."

Our next letter is headed Franklin O. Adams, Jr., Architect, Tampa, Florida, and reads as follows: "As I do not know whether you have received any dope concerning my history since 1907, I will briefly review the intervening years as they have affected me.

"From 1907 to 1914 I was employed in various capacities by architects in Boston, New Orleans and Birmingham. In February, 1924, I opened my own office in Tampa, Fla., and have been practicing here since that time, except for three years during the war, which time was spent partly in the concrete shipbuilding experiments at Wilmington, N. C., and partly in the establishment of the office of State Architect in North Carolina in the capacity of Assistant State Architect. My practice here was pretty lean until my return in 1921. Since then the office has grown rapidly in volume and importance of work done. A year ago I took into partnership Jefferson M. Hamilton, A. I. A., formerly connected with the offices of Tyrie and Chapman and the Small House Service Bureau.

"On July 9, 1914, I was married in New Orleans to Caroline Mathilda Kilbride of that city. We have two children, Franklin O., Jr.,

age II, and Caroline Mathilda, age 7.

"I have served three terms as President of the Florida Association of Architects, one term as President of the Florida Chapter, American Institute of Architects, and four terms as President of the Tampa Association of Architects. I am a member of the American Institute of Architects, American Specification Institute and Technology Society of Architects.

"My work has been of a general nature, doing residences, churches, apartments, hotels and business buildings. My most important commission was probably that of a municipal group including five buildings for the City of Lakeland, Fla. This was won through a competition carried on under the auspices of the American Institute. My existence has not been monotonous and I have thoroughly enjoyed my life and work. I have even been so fortunate as to maintain my belief in practicability of ideals. Of course I have not accomplished

one-tenth of what I had fondly hoped to do by this time, but while there is life there is hope. My kindest regards to yourself and all of the

'07 men with whom you may come in contact."

Harry N. Burhans, 2627 East Genesee Street, Syracuse, N. Y., wrote as follows: "What do you mean, disappeared? I've been in this town ever since birth, except four years previous to 1907, and since that date I have been connected with a hardware business founded by my father some fifty years ago and with a reputation that I thought was pretty well known. At least, I get all the circulars issued by oil and gold mining companies, fly brokers, and so on.

"I think you have passed me a circular letter, although from my experience with them I fail to find that it contains the usual earmarks. However, if any one is interested you can tell them that I was in the hardware business as noted above, but that on February first some fellows came along and wanted to annex our assets, liabilities and jobs, and we let them do it so that since that date yours truly has been leading the life of Riley and doing all sorts of plain and fancy loafing. It's a great job and I am surprised at the amount of punishment I am able to take. Besides, it's rather a joy to realize that Uncle Sam can't take an income tax rap at the old earned income because there 'ain't none.' I plan to hold on to my present job as long as I can, but have a sneaking suspicion that I'm going to get sick of it, and if I resign I will let you know. Also be advised that I will be at the Reunion next June if I possibly can make it."

I received the following letter from Harold S. Duncan: "I received your communication of October 20 and I am writing you a few lines to let you know that I am well and on the job. I am still with the Old Dominion Company here at Globe, Ariz., trying to do my part to produce copper at a profit in spite of the persistent low price of the red metal. Since 1918 I have held the position of chief mine engineer

for this company.

"I have my home on one of the high points of the city with a minimum view of eighteen miles and a maximum view of ninety miles from my front porch. So you see that I am pretty well weaned away from large cities with their confined spaces. I spent a month this summer on the Pacific Coast between San Diego and Los Angeles and, although I had a very enjoyable time, I was really glad to get back to the land of open spaces. I have one daughter, age 18, who has finished high school and is now attending the Chouinard School of Art in Los Angeles.

"Well, I have used the word 'I' in these few lines more than I have used it for some time, but I have as an excuse that I am following

instructions.'

Wheaton I. Griffin writes on the letter-head of Griffin and Hoxie, Wholesale Grocers of 22 Catharine Street, Utica, N. Y., as follows: "Thank you for your letter of October 20. Certainly a lot of water has gone over the dam since the days when you and Robbie were working away on your thesis and I dropped in to bother you. I don't remember having seen you since then.

"After graduating from Technology I went into the wholesale grocery business and have been in it ever since and probably will follow this means of making a living. Certainly I like the business

and hope always to continue in it.

"Mrs. Griffin and I have two children, a boy who is just now getting out of the hospital after an operation following an acute appendix and who I hope will some day be a Technology man, and a daughter

who we hope will enter Vassar a year from next fall.

"It is very seldom that I see any '07 men. I did see Robbie and Bill Otis last spring in Boston and Charlie Coffin in New York. This summer Frank Hamilton telephoned me that he and Mrs. Hamilton were in Albany and if we were to be here they would get on the train and come up to see us. They reached here about five o'clock and we spent a very pleasant evening together. I had not seen him since we were sophomores. Please do not fail to keep me on the list, even if we do not often see one another."

We received a letter from C. D. Howe on the letter-head of C. D. Howe and Company, Consulting Engineers, Whalen Building, Port Arthur, Ont., which reads as follows: "I was glad to receive your letter of October 20. I feel rather out of touch with the Class of 1907, although I occasionally see one of them on my eastern trip.

"I am still very busy building grain elevators and flour mills. The work is more or less a specialty, but it has plenty of variety and is always interesting. During the past two or three years we have built large grain elevators at Buffalo, N. Y., Midland and Owen Sound, Ontario, Edmonton, Alberta, and Prince Rupert, B. C., as well as a large flour mill and grain elevator at Calgary, Alberta, and a good deal of smaller work scattered all the way across Canada. You

can see that this means a good deal of traveling. I think that during the last eighteen months I have been at home about six weeks.

"Outside the usual work, I have had two other interesting jobs during the past year. One was the purchase of a large elevator property for Canadian clients, which involved two trips to London, England. I sailed for England the last of November, returning at the end of December, and left for England again in January, returning in March. It was my first trip to England and I enjoyed the contacts there very much. I was greatly impressed by the type of business men there, and with the orderly way in which everything moves. I am convinced that the English business man has a world wide outlook that cannot be found elsewhere.

"The other job was an arbitration to fix the price of elevator properties worth about twelve million dollars, which were being sold. This involved a great deal of valuation work, and a real legal battle.

"On the personal side, Mrs. Howe and I are still living in Port Arthur, Ont. We have three children, two boys and a girl. If it is at all possible, I intend to be on hand for the Twentieth Reunion and renew old acquaintances."

We have a letter from Addison Miller of the firm Addison Miller, Incorporated, 1201 Builders Exchange, St. Paul, Minn., which says: "Your letter of October 22 was almost like a voice from the grave. My present activities center around a concern incorporated in my name and of which I am President. The firm specializes in building and operating artificial ice plants for railway companies. We have several of these plants built and operating in the northwest at present. I am anticipating a trip east in the next six months and if I get to Boston I will be more than happy to look you up and renew old acquaintance. In the meantime or subsequently, I shall be glad to have any of the 1907 men who may pass through St. Paul look in on me for a little visit."

W. Watters Pagon of Lexington Building, Baltimore, Md., wrote as follows: "I have delayed answering your letter of the twentysecond, both because I have been too busy to think up a complete record, and because I am always disinclined to talk about points that

would not seem of interest to the person addressed.

"After leaving the Institute I worked in a steel shop for two years and then, finding that I knew very little, I went back to Harvard for a Master's degree under Professor Swain. For nearly seven years thereafter I was with Mr. J. E. Griener, consulting engineer, where I was finally made a member of the firm. We built bridges, coal piers, and miscellaneous structures from Connecticut to Georgia, with valuations and special reports sprinkled in. In 1917 I opened an office of my own, but before long I got into war work when the items of work were Camp Meade, Md., and the Curtis Bay Ordnance Depot, Baltimore, totalling about \$20,000,000. I was first assistant to the C. Q. M. and later acting C. Q. M. After discharge I tried it again on my own and have stuck to that ever since. I have built a number of industrial plants, one small shipyard, some bridge work, buildings and so on. I have made numerous reports on technical subjects, and in 1920 I made an inspection trip to all the larger American seaports, and those of western Europe, for the City of Baltimore in connection with the development of the port. I was a member of the special committee appointed by the National Advisory Committee for Aëronautics to review the design of the Shenandoah before she was built, and of another to review the design of the Army airship RS-1. Professor Hovgaard was also a member.

"During this air work I developed some theories of bending in airships, and also a theory of 'breathing' which I am glad to say 'panned out' when the RS-I was tested. All of this that applied to semi-rigids is contained in a book, 'Pressure Airships,' soon to be issued by the Ronald Press Company. I valued all bridges of the United Railways and Electric Company of Baltimore, in connection with Bancroft Hill, '09. I also valued the Susquehanna River Bridge at Havre de Grace, Md., later purchased by the State of Maryland.

"I have seen very little of our classmates in the last nineteen years, but I follow the Class notes each month with great interest. It gives me a great deal of pleasure to watch the success of my friends. A consulting engineer has to be usually somewhat older than I before he gets any jobs of importance, but I get a big kick out of the work I have had to do, and now I have sufficient clients to keep me pretty well occupied."

From a letter bearing the heading, H. A. Sullwold, Architect, 107 East Third Street, St. Paul, Minn., we have the following: "I have your letter of October 25 and hasten to answer. I was married in 1908 and have three children; a girl, age 17 years, and two boys, ages 15 and 9 years. I am hoping to send one of the boys to Technology if I

can conserve my resources to that extent. I have been a practicing architect for the last eleven or twelve years under my own name, and have only been on my feet for the last two years. I have done many houses. Two years ago I did a large chapel for the College of St. Catherine. Plans of it were published in the American Architect in December, 1925. Since then I have had a science hall for the same institution, several factories and a power plant.

"I realize that at forty-three I have only about ten years more to make enough to carry me through the declining years. I have not corraled enough, however, to make attendance at a reunion possible as yet. Clint Ruff is in this territory, so is Ad Miller. Ad is still a bachelor, but Clint is married and doing well. If you see any of the old men of the Class, remember me to them and if any of them come west, be

sure to have them drop in to see me."

J. J. Thomas writes on the letter-head of the American Can Company, Pacific District, Mills Building, San Francisco, Calif., as follows: "I just received your letter of October 25 asking me what I was doing at present. I realize that I have been negligent in writing to either you or Nichols, but I have been very busy on a new job and

had very little time for correspondence.

"At present I am district superintendent for the American Can Company, with headquarters in San Francisco. I have charge of the following can manufacturing plants: two in San Francisco, one in Oakland, one in San José, one in Sacramento, two in Los Angeles and six factories in the Hawaiian Islands. In addition to this we have a large machine shop in San Francisco where we design and build our own special machines. My work at the present time is mechanical engineering primarily, so I am applying the knowledge gained in Course II, although the bulk of the work is executive and supervisory.

"I would be glad to hear from any of the boys whenever they are on the Coast, but I feel that I am too far away to attend any of your reunions. I get quite a kick out of reading The Technology Review and looking to see what the various fellows are doing. Please remember me to all of them and particularly to those who come to the next reunion.'

Samuel R. T. Very writes on the letter-head of Very and Brown, Architects, 100 East 45th Street, New York City, saying: "Your letter of some fifteen days ago was duly forwarded. Just what would interest any classmate, of the things I could write, I don't know. I have practiced architecture steadily since three years after graduation, except for the war, first getting sufficient office training to be sure I could handle any work likely to come my way. I do not specialize. Last year's agenda was probably typical of the sort of work I doschools, churches, city office buildings, and country houses were among the commissions received and executed.

"At present I am engaged in church work besides an interesting country estate. I have little time to waste. I get good fees, but spend almost as much as the fees in earning them. I have endeavored to keep my finger in all of the many pies baked in the dish of architectural practice, preferring to try and excel in all of the branches to making

an uninteresting business.

"During the war I was rejected because of flat feet, defective eyes, bad fingers, not enough fat, and a vicious disposition, until I finally signed up as an architect with waivers all round. I served thus for some twenty-one months, principally in ground aviation in the vicinity of Toul. I came back unscathed, without any luck to the enemy and probably less to our side for the glory of my companionship.'

L. T. Walker, Villa des Rochers, Grand Rue, Dinard, Ille et Vilaine, France, gives us the following news about himself: "It was with much pleasure that I received your very cordial note of October 13, and the least I can do to show my appreciation is to answer it promptly. Unfortunately I am not very good at telling about myself - what a godsend your request would be to some people! - and there isn't much to tell anyhow. As you know, I went into the Army directly after graduation and retired as a major in 1922. I lived in North Africa for a couple of years and then came to France. If anybody asks you what I am doing, you may tell him that I am playing very bad golf and very bad bridge, all in very good company and in an excellent climate. I am very fit indeed and expect to live to be a hundred and fifty if somebody doesn't brain me with a niblick for obstructing the course.'

Our last letter is from R. H. Willcomb who gives us an excellent account of himself as follows: "I have your letter of October 25 and shall be glad to supply you with some information as to my activities. As I glance backward it is not surprising that you have been unable to keep track of me. It is a little difficult for me to keep track of myself.

"At the present time I am manager of the Great Falls Iron Works of this city. Like a comet I have revolved about Great Falls since coming here first in 1908. I am absent on various occasions but always return. Briefly my story to date is something like this: From March, 1908, to September, 1909, I was with the old Boston and Montana Company at Great Falls. From September, 1909, to September, 1912, I was in general engineering practice at St. Maries, Idaho. Throat trouble induced by close application to duties about ore roasting furnaces made an outdoor life imperative. While in Idaho I was engaged in survey work, municipal improvements, flood protection and logging operations. From September, 1912, to May, 1913, I was with a municipal contractor at Salt Lake City on sewer construction work. From May, 1913, to March, 1916, I was with the United States Reclamation Service, headquarters in Great Falls, on dam construction including the South Pablo Dam on the Flathead Indian Irrigation Project and the Sherburne Lakes Dam of the St. Mary's Storage unit of the Milk River Irrigation Project in northern Montana.

"From March, 1916, to July, 1917, I was resident engineer on the rehabilitation of the Sweetwater Dam near National City, Calif. On this work I made the designs for a syphon spillway which, at the time constructed, was the largest in existence. From July, 1917, to August, 1919, I was resident engineer on the construction of the Lower Otay Dam for the City of San Diego, which replaced the old rock-filled, steel-diaphragmed affair that was washed out during the flood of 1916. From October, 1919, to May, 1925, I was resident construction engineer for the Montana State Highway Commission, with headquarters at Great Falls. From May, 1925, to August, 1925, I was with the Pennsylvania Bureau of Highways on paving construction. From August,

1925, to date I have been as first stated.
"In May, 1911, Bessie M. Boal of Great Falls accepted me for better or for worse and in spite of much of the 'worse' is still her charming self and steadily growing younger in her association with our four daughters, Lillian, Mabelle, Betty and Nancy, ages 14, 11, 8 and 2 respectively. I have made no startling discoveries, written no books, revolutionized no industries, and until recently kept my Yankee shell intact. However, I am just now serving as President of the local Kiwanis Club and my shell is badly cracked and may eventually

emerge from the egg stage. "I see Al Wiggin quite often and it is delightful to note that he grows finer and more gracious along with his remarkable development and achievements. Only last Saturday he entertained about a dozen local Technology graduates in honor of Charlie Goodale, '75, who happened to be passing through Great Falls. Mr. Goodale is still the charming, interesting personality that has endeared him to all his associates, past and present. His interest in all his acquaintances and their work and development is outstanding. Quite obviously he is still putting men ahead of things and human development ahead of dividends. It struck me the other evening with renewed force that possibly we, as a rule, do not adequately appreciate what our Institute of Technology is accomplishing, and other institutions such as the Anaconda Copper Mining Company, who take up the work where our Technology leaves off and give us finally such men as Al Wiggin and Charlie Goodale.

"Your interest is appreciated and if I haven't delivered the goods as requested, additional specifications will result in another attempt.

The following article, prepared by the Chamber of Commerce of Denver, Colo., was published in a newspaper of that city: "Whereas, the Denver Chamber of Commerce has noted with regret the announcement of the removal of our fellow citizen, Lucius F. Hallett, to the city of Portland, Ore.; and whereas, Lucius F. Hallett was, at the time of his departure and for many years prior thereto had been, an honored member of this Chamber which consistently supported him in his work as President of the Board of Education of the city; and whereas, as President of the Board of Education from 1917 to 1926, he rendered distinguished service to the cause of education which will inure to the benefit of the present and future citizens of Denver, which service was discharged with signal ability, vision and integrity; and whereas, his generous contributions to the welfare of the city, through the Denver Art Museum, St. Luke's Hospital, the Clayton School for Boys, the Colorado Museum of Natural History, and various other public activities have been of permanent value: Now, therefore, be it resolved by the Board of Directors of the Denver Chamber of Commerce, that we express our appreciation of the public service rendered this community by Lucius F. Hallett; that we regret his departure from the city and express the hope that at some future time he will again be numbered among our citizens; and that we wish him all success and happiness in the community in which he has cast his lot as a citizen."

BRYANT NICHOLS, Secretary, 2 Rowe St., Auburndale, Mass. HAROLD S. WONSON, Assistant Secretary, W. H. McElwain Co., Manchester, N. H. The first bi-monthly dinner of the 1926-27 season was held on Tuesday, November 16, at the new University Club. There was a remarkable turnout, the following being present: Merrill, Gurney, Freethy, Coffin, Ellis, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Lev. Clark, Exten Booth, Area, Wells, Newhell, Westley, Cock, Cock,

Cook, Joy, Clark, Esten, Booth, Ames, Wells, Newhall, Wattles, Heath, Collins, Carey, Mayo, Davis, Beede, Kennison, Sewall, Carter. During the evening Karl Kennison, who has recently become Designing Engineer for the Metropolitan Water Supply Commission, gave a very interesting talk of the proposed extensions to Boston's water supply, which has become rather dangerously overloaded during recent years. Another member of the Class, Leroy Hammond, is to be associated with Kennison in the work, as Hammond was recently appointed Assistant Division Engineer, and we understand has already started work in the Swift River Valley preparatory for the second stage of the work.

J. Scott MacNutt, under date of September 17, 1926, wrote from Schloss Ratzötz, Brixen, Alto Adige, Italy, as follows:

"While I am abroad (which I expect will be for a year, possibly longer) my regular address will be in care of J. N. Wells' Sons, 191 Ninth Avenue, New York City, which will also hold good until I am settled again in the States.

"Perhaps I may add that while abroad, I shall be for the most part occupied in painting, and that I expect to have a studio in Paris during the coming winter. My work is principally portraiture. While here I have produced a portrait of Francis A. MacNutt, my uncle, the retired diplomat and man-of-letters, who now makes his home in Brixen. This is to be hung in the Brixen Museum as a memorial to him as its benefactor. I mention these items merely in case alumni notes are starving for news."

Mabel Keyes Babcock announces the removal of her studio to the Beacon Hill House, 122 Bowdoin Street, Boston. Miss Babcock, as you know, specializes on the planning and execution of landscape work of all descriptions.

"Doc" Leslie was living in Miami last September during the cyclone. Those of you who may have seen the Boston Transcript of September 22 probably read his letter describing his experiences. We hope before long Doc can arrange to be in Boston for one of our dinners and tell us something about how it feels to go through a hurricane. While a good deal of the newspaper stories are probably over-exaggerated, they are apt to swing the other way as well, under-rating some of the things that really happened.

The second bi-monthly dinner will be held on Tuesday, January 11. Usual notification will be mailed and it will help a lot in making arrangements if you will return promptly the reply cards so we can know how many to count on.

H. L. CARTER, Secretary, 185 Franklin Street, Boston, Mass.

With this issue of The Review we record the death of one of our classmates, Wallace E. Boardman, who passed away on October 25, after an illness of nearly a year. His wife writes of him as follows: "He made a long, hard fight for life, and best of all it was a smiling struggle; never a word of complaint, always a smile, a cheery word and unfailing interest in those who cared for him. He leaves a record of clean, Christian character, work well done, and happy memories to his friends."

Boardman was born on November 9, 1882, in Wakefield, Mass., where he resided nearly all of his life. He graduated from the Wakefield High School, entering Technology with the Class of 1909. From the Institute he went with the Greenfield Tap and Die Company, where he remained about a year and a half. Later he became associated with the late Professor S. Homer Woodbridge, specializing in heating and ventilating. About ten years ago Boardman entered the employ of Stone and Webster, Inc., being a member of their engineering department at the time of his death. Here "his professional ability, his genial character, and his loyalty and integrity won for him a host of friends." Boardman was a member of the Wakefield Congregational Church, of the Men's Club of the First Parish and of the Wakefield Y. M. C. A. He was also a member of the American Society of Heating and Ventilating Engineers, and of the American Society of Mechanical Engineers. About thirteen years ago he married Emma I. Brown of Lynnfield Center. His wife, a brother and a sister survive him.

L. H. Johnson is associated with the Bell Telephone Laboratories, Inc., in New York. His letter to Paul Wiswall is just the kind I wish we might have from each member of the Class. Letters like this would add much to the personal interest in Class notes. He says: "There isn't very much regarding my affairs that is of particular interest to

any one else. Of course, most everybody knows that I occupy the bulk of my active hours in an endeavor to produce or assist in producing circuits and systems for the Bell Telephone Companies that will keep the various telephone subscribers and telephone companies over the country in a continued state of happiness. The rest of my efforts are directed toward the upkeep of a thirty-acre place on which I have about 100 apple trees, a few chickens and three cows. Many of the apple trees are young and not in bearing, but the orchard produced so much fruit this year that I had to give away approximately half of it in order to get it picked. Now that my big son, who will be seventeen next April (and I think is the Class Baby) is now attending a preparatory school away from home, it devolves on Dad to milk the cows and do the other chores. I wonder how many other members of the Class have children at preparatory schools already. In two years my boy will be attending college, if he has the ordinary run of success. In five years, I shall probably have three children in college.

"I might mention also that for recreation this year I have been engaged in building a small house on one corner of my property. I have found from this endeavor that there were many things about the construction of buildings that I didn't learn in the engineering course at Technology. I have been successively ditch digger, mason, carpenter, plumber, electrician and bricklayer during the course of the summer, but I am going to employ some one else to do the plastering on this house; I draw the line at that. That conclusion is reached from the experience that I have derived in connection with the other artistic attempts that I have made."

Lynn Loomis writes that on October 9 he was married to Miss Margaret Reed at Granville, Mass., and is now living at 25 Claremont Avenue, New York. Lynn is with the Eastman Kodak Company in their New York office.

S. F. Barnett has bought a fruit ranch of about thirty acres of which seven acres are in apricots and the balance in prunes. His address is Route 2, Box 290A, Hollister, Calif.

Tom Desmond is now abroad visiting in Germany, Switzerland, Austria, Turkey and Greece. Last spring Tom was quite active in reorganizing the Young Republican Club of which he was elected temporary President. Tom is reported to have said, "We shall begin immediately to raise our membership to one thousand members, but that is only our initial goal. We shall try to coöperate with the recognized leaders of the Republican party in order to stimulate and vitalize the organization and bring into it ideals and a youthful progressive program. It is our purpose to work within the organization, and as a part of it, we shall endeavor to improve from within rather than merely criticise from without."

From the time of its organization until five years ago the Young Republican Club was active and influential, and there were graduated from its ranks many men who have since become prominent in public life. Assurances were given at the meeting that the leaders of the Republican party welcome the revival of the Young Republican Club and would coöperate to further its aims.

On Saturday, October 30, the New York crowd had a very enjoyable Class luncheon at which nine of the men were present. A second meeting is being planned for December 6 at the Technology Club at which your Secretary expects to be present.

For some time the Boston crowd has been holding occasional luncheon meetings which have proved most enjoyable.

CHARLES R. MAIN, Secretary,
201 Devonshire Street, Boston, Mass.
PAUL M. WISWALL, Assistant Secretary,
Franklin Baker Bldg., Hoboken, N. J.
MAURICE R. SCHARFF, Assistant Secretary,
435 Sixth Avenue, Pittsburgh, Penna.

Your Secretary is ready to print any and all communications received, but has a hard time writing notes with no material. Note the new address, 16 Martin Street, Cambridge, and write me anything at all of interest to the Class. — Charlie Almy, who was married last June to Miss Mary Elizabeth Gardner of New York, is now on a honeymoon trip around the world.

Come on with your letters and don't be deceived by the monthly statement of The Review Editor that he has sent the Secretary notes compiled at the office, because usually "there ain't none."

Dudley Clapp, Secretary, 16 Martin Street, Cambridge, Mass. R. O. Fernandez, Assistant Secretary, 264 West Emerson Street, Melrose, Mass.

With deep regret I here chronicle the passing of one of our classmates, John Pierrepont Constable, XIII, on October 31. John was killed in an automobile accident in Glens Falls, N. Y., but details are lacking. He was a member of the Delta Upsilon fraternity and the Naval Architecture Society while at Technology and at the time of his death was general manager of the Kanes Falls Electric Company, Glens

On Saturday, October 23, in New York City, Robert O. Wood, VIII, was married to Miss Elizabeth Knickerbocker Angell. Bob is in the engineering department of the New York Edison Company and is located at Elizabeth, N. J. - Charlie Ashley's father, who holds the unique record of serving the City of New Bedford as Mayor for twenty-one consecutive years, successfully passed through a serious operation in early November and at this writing is on the high road to

recovery

Max Kushlan, VI, is, as you know, with Stone and Webster in the engineering office at Boston. In the Electrical World of November 13 is an interesting and cleverly devised article by Kushlan entitled "Calculation of Wire and Conduit Sizes." Accompanying the article are several curves and tables based on fundamental formulae and offering a short solution for checking feeder design or making preliminary estimates. Altogether a creditable accomplishment.

Shortly after the undergraduate fracas on the eve of Field Day of 1926 Charlie Linehan, I, who is still teaching and coaching, asked me why it wasn't about time to have football again at Technology the boys can use up their surplus energy on one another instead of making fools of themselves around town." More and more athletics are coming to the fore here, of course, and this year the 1928 football team, winners as sophomores at Field Day of 1925, kept on playing this fall and made a fair showing.

At this juncture I wish to apologize publicly to Erv Young, I, for having neglected to credit him with attending the Ten-Year Reunion as well as the Fifteen-Year Reunion when publishing the post-reunion issue of Thelevener last July. He was very much at both reunions!

Boston's new University Club on Trinity Place, where Engineering C and the Union used to be, was the scene of this year's Ladies Night on the evening of November 22. There were twelve couples and three "stags" present when the delicious dinner was served in a private dining-room on the fourth floor, where ladies and their escorts are privileged to go in the eighth-story clubhouse. From the figurative drop of the hat, every one seemed to be in a happy frame of mind and

all in all it was most enjoyable.

Seated around the festive board were Mr. and Mrs. M. E. Comstock, Mr. and Mrs. Orville B. Denison, Mr. and Mrs. Calvin P. Eldred, Dean and Mrs. Carl S. Ell, Mr. and Mrs. Edward R. Hall, Mr. and Mrs. T. H. Haines, Mr. and Mrs. John A. Herlihy, Mr. and Mrs. Harold S. Lord, Mr. and Mrs. Robert E. Morse, Mr. and Mrs. Roy G. MacPherson, Mr. and Mrs. E. J. Whitcomb, Mr. and Mrs. Walter C. Wilson, Oberlin S. Clark, George B. Cumings and E. D. Van Tassel, Jr. Later in the evening Carl Richmond and O. W. Stewart blew in, having just returned from trips away from Boston.

In the talk which followed the meal, Cal Eldred reported having seen Chet Dows, VI, in Cleveland recently and that Chet's wife had presented Chet in mid-November with a baby daughter, Dorothy Dows. Chet is this year chairman of the Cleveland section of the A. I. E. E. and is head of the tests and standards section of the National Lamp Works at Nela Park. - O. W. Stewart said he recently saw Bill Salisbury, II, in Cleveland, where he is local manager for the Guarantee Heat Corporation, manufacturers of heating equipment. -Ted Van Tassel, still broadening his suggested uses for his own patented sole leather, has opened a Boston office under the name of

Van Tassel Company at 607 Boylston Street, Boston.

After this came the big headline feature of the evening - the showing of the reel and a half of kodascope movies taken by Emmons Whitcomb at the Reunion. Whit showed the films and then tried to run them backwards for the unique effect thus produced, but found that since the film and not the machine was what had to be reversed, it was impossible to show without having the images upside down. Can any of you other engineers figure how that can be done, short of an extra operation of winding and rewinding? If you can, write to Dennie. Better do that anyway, parenthetically. Whit also showed some movies he had taken when he and his wife took the North Cape cruise to Iceland and Norway last summer, as well as an interesting "Round the World" movie. It was highly entertaining.

A number of greetings from those at a distance who had attended the Reunion last May, but who could not attend this party, were

enjoyed by those present and Technology songs were sung with a gusto. After dinner to dulcet tones of the piano as dulcetted by the Secretary, the merrymakers danced, played musical chairs (Bob Morse won this event), had old-time Portland fancies and a Virginia Reel, and finally broke up just before eleven o'clock after a most enjoyable gathering.

In closing let me once again assure all 1911-ers and others that mail addressed to me at M. I. T. reaches me and is always gratefully re-

ceived. These notes depend on your cooperation!

ORVILLE B. DENISON, Secretary, Room 3-207, M. I. T., Cambridge, Mass. JOHN A. HERLIHY, Assistant Secretary, 588 Riverside Ave., Medford, Mass.

R. W. Chandler has been elected President of the Technology Club of Western Pennsylvania, and has started in to make the Club an active body. Lunches are held at 12.30 each Friday at the Chamber of Commerce Building, Pittsburgh. Active committees have been

opened on finance, publicity, alumni, scholarship, undergraduate, faculty and corporation affairs. This is just the sort of thing that should be done for each local association, and here's more power to

R. W. in starting out on a wide-awake basis.

Eddie Holbrook, of Course I, has just returned from China where he has been with the Truscon Steel Company. He is at present located at the export department of the Truscon Company in New York trying to make up his mind whether to return to China. We are using our influence to have him stay over for our Fifteenth Year Reunion next Spring as it's going to be worth while. What say to dropping your Secretary a little news by way of a Christmas present? All offerings will be gratefully received.

F. J. SHEPARD, JR., Secretary, 125 Walnut Street, Watertown, Mass. D. J. McGrath, Assistant Secretary,

McGraw-Hill Co., 10th Ave. and 36th St., New York, N. Y.

No notes have been received by The Review Editors from the Secretary of this Class for inclusion in the January issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the Class having news or inquiries should address them to Harry D. Peck, Secretary, 99 State St., Boston, Mass., and G. P. Capen, Assistant Secretary, 25 Beaumont St., Canton, Mass.

The first of the series of winter luncheons in Boston was held at the Engineers Club on November 2. Fales, Crocker, Adams, Waitt, Blakeley, Dunn, Ahern, Stump, H. S. Wilkins and Richmond attended.

Charlie Fiske is wearing another broad smile. Why not? Anne Adams Fiske arrived at Charlie's house on October 23. - Harry Bowman has left Technology and is now professor of Civil Engineering at Drexel Institute, Philadelphia. We still have left, however, at the Institute three Fourteeners with the rank of associate professor, namely Hamilton, Fales, and Chatfield.

A card has been received from Phil Currier announcing his safe arrival at Buenos Aires. He writes that there is one thing about Argentine that makes it worth taking the trip and he soon expects to

see Dunc Shaw and Mitchell down there.

It is not alone the calendar that tells us of the increasing years since graduation, but also the more frequent rate at which it is necessary to record the passing of another classmate. We have already lost one out of every fifteen who graduated. On October 26 we lost Eugene M. Fisk of double pneumonia. Fisk leaves a widow but no children. He had been associated with the Western Union Telegraph Company at New York since graduation.

H. B. RICHMOND, Secretary, 100 Gray Street, Arlington, Mass. G. K. PERLEY, Assistant Secretary, 15 Ivy Way, Port Washington, L. I., N. Y.

I now realize how much Frank and Howard had to do to get Class notes and to get them in on time. The time has gone by so quickly that we have not had a chance to plan our evening's get-together. But by the time this actually appears in the January issue, I hope we shall have completed some of our plans.

The much discussed drabness and lack of enthusiasm in the Yale-Harvard crowd could not have been due to insufficient M. I. T. representation for there certainly was a bunch there. Frank Scully saw Jerry Coldwell. The Framingham delegation of Mitch Kaufman, Jack Sindler and Max Woythaler finally saw Yale win a game after commuting to New Haven several week-ends. I recognized some men from other classes. — My work takes me around New England and occasionally across central and northern New York State and from Toronto to Montreal. There's a city for Gurnsey Palmer to consider for our Fifteenth. I will be happy to see any of our fellows who will let me know where they are and when they will be in these cities.

In Worcester recently I met Charley Norton, who was on our reunion committee. Charley complains that they left Alaska out of his territory, but, at that, in the rest of the United States he still sells a lot of the products of the Mechanical Division of the United States Rubber Company. Carl Wood is with Stone and Forsythe Company, Boston, paper and twine jobbers. He was enthusiastic about winter activities of our Class. I saw a good looking squirrel coat with Larry Landers at the Dartmouth game in the Stadium. In Middletown, Conn., I saw Larry Quirk in person, not a motion picture. Larry has what you might call a rotund and politely portly figure. He had seen most of the big games and spoke of some dampness in his cellar. It apparently did not need a plumber and I am sorry I could not stay and taste it. He asked for everybody, especially his old Course I crowd.

Now and then I meet Clive Lacey and Jack Dalton in Boston. What has become of Harry Lucey who gave every early indication of remaining a chemical engineer? In Berlin, N. H., I talked with Don McMurtrie, Doc White and Al E. B. Hall. There are several Technology men in the mills of Brown Company there. In Lockport, N. Y., Ben Neal is manager of the Norton Laboratories, Inc. Willie Wilson, who played ball so staggeringly at Cotuit is associated with him. From there I carefully avoided Niagara Falls and came to Buffalo where I saw Ben Lapp, who has charge of a plant division of the National Aniline Chemical Company, making wool colors.

Sam Sampson, the crooning dice juggler, and I enjoyed a breakfast together in Burlington, Vt., shortly before Sam's recent marriage. In spite of the rush of his Christmas engraving business, Abe Hamburg had time to look up the two Fosters and urge them to keep in touch with our Class activities. And old Clyde MacKenzie did so well as purchasing agent for Reed Barton in Taunton that they made him production manager. Hoot says some of us will have to get married or give some wedding presents or, at any rate, buy a lot of silverware, as he is speeding up the production down there.

If this were a football game we could end it by tearing up the goal posts, whether our side won or not. But, as it is not, I will end by asking you fellows again to answer my "Help, help!" with any interesting news you have or any suggestions you can make to keep this from being a mere recital of where some one was seen and what he is doing. So, don't spare the stamps, boys!

And may you all have had a delightful and happy Christmas with lots of remembrances! And from the Class to every one, a cheerful, prosperous and successful 1927.

AZEL W. MACK, Secretary, 371 Marlboro Street, Boston, Mass.

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the January issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Russell H. White, Secretary, Kardex-Rand Sales Corp., 118 Federal St., Boston, Mass., or to Charles W. Loomis, Assistant Secretary, 7338 Woodward Avenue, Detroit, Mich.

Plans for the Reunion next June are well under way, with the main outline of dates, events and places tentatively scheduled. Mac McGrady is spending an appreciable amount of time and effort on the affair, and if it is not a grand super-success, the fault will not be his.

A few letters have come in with suggestions, and more would perhaps be received if it were generally realized that it will soon be too late to revise any but the less important details.

A note from Johnnie Holton suggested that the Reunion be held near Boston, for various reasons. The general consensus of opinion of those who have commented so far favors a spot between New York and Boston, nearer the geographic center of the 1917 population. It seems best that at least a part of this, the most important get-together of 1917, should be at the Institute, for reasons such as those Johnnie gave, and the program will probably include some function there. The thing to do right now is to include a reasonable sum for the grand Reunion in your 1927 budget, and tell your bosses that a long week-end in June is already spoken for.

Joe T. Battis Woodruff is gradually branching out from his work in Springfield, Mass., and giving a few other cities and towns the benefit of his experience and talents. He specializes in town planning — zoning, traffic control, and so on — and frequently gives talks and lectures to civic organizations and groups all over New England, illustrating his talks from his extensive collection of lantern slides. He is retained as consultant by several of the more progressive communities.

Alan Sullivan is now with the Doherty Research Company at 125 Van Dam Street, Long Island City, on work which he finds decidedly to his liking. He is living at 4128 Cleveland Avenue, Woodside, Long Island. — L. W. Stevens is not sure whether he is 1916 or 1917, but with an element of doubt existing is willing to forego the honor of being in 1916, and will be with us at the Reunion. He is making Veeder counters in Hartford, Conn. — Bill Eddy has again sneaked to Europe. — Dick McLaughlin is back in the paper game, but has not favored us with the name of the company or his office address. — Harry Stearns has several architects associated with him at his office in New York and shows every evidence of successful progress. He has passed along some very constructive suggestions for Mac's consideration.

The Review Editors in their usual notice that notes will soon be overdue say that some difficulty has been experienced with mistakes in names, in initials and in "factual details." In order to avoid this embarrassment to the "meticulous and hawkeyed" staff, and to see the "factual details" correctly printed, just send in a letter and make it unnecessary for us to depend upon gossip, memory or imagination. See you in June.

RAYMOND S. STEVENS, Secretary, 30 Charles River Road, Cambridge, Mass.

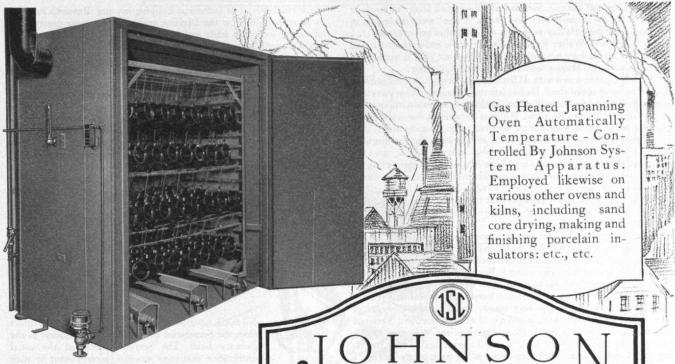
And now let me wish all my classmates a happy and prosperous New Year and may your resolutions be effective for at least one month.

Malcolm Baber has written from Philadelphia. He has been in that city since the war and is at present on production work for the Atlantic Refining Company. He sounds like a lonesome Eighteener and doesn't see many of the Class. Do any of you fellows ever get to Philadelphia? If so, look Mal up at the Atlantic Refining Company plant. Malcolm says he believes Bob Heyl is living in Jackson Heights, is married and thinks he has a daughter. This calls for a penny postcard and three minutes of valuable time from Bob. I assume that Bob is still with the Cutter Electrical Manufacturing Company.

We have another Mal — Malcolm A. L. Fales — who is a good old scout to come across with dope about the Class situation in New York circa November, 1926: "I was glad to get your epistle some few weeks ago and would have answered it before this except for the fact that I have been out of town. The November issue of The Review reached me yesterday and I noticed with considerable interest the space required for the 1918 notes. That certainly is a good start — keep up the good work.

"Regarding the fellows down this way, we have had two luncheons this fall. Our list includes John Cassidy, Pete Harrall, Sax Fletcher, Clarence Fuller, Baldy Miller, Clarence Dagnall, Sam Macgregory, Mike Malley, Rus Mumford, Bill Costelloe, Jack Kennard, Nel Bond, Fred Lane, Pete Sanger, Monk Pierce, George Hutchins, and Phil Craighead. Most of these fellows have been around this fall and all of them have given us their support. One of the problems with which we are confronted is that here in New York we are pretty well scattered and it is difficult to find a place where we can all get together, have lunch and talk with each other and get back to the office within a reasonable lunch time. In fact, John Cassidy says that he has only time enough to do his talking while busy gargling spaghetti. As a result, we are considering an evening session once a month instead of the lunch if we can get enough of the boys together to make it worth while.

"While in Chicago recently I spent a very pleasant Sunday with Bob Grohe who lives in Evanston. After a most enjoyable dinner Bob carted me out on the beach to play a game of alleged horseshoes along with a half a dozen other Technology men who live near him. The temperature was about 273° below zero, the wind blowing about ninety



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miles an hour and the so-called horseshoes weighed about as much as wagon tires. As a result very few 'holes in one' were made and in addition I felt the next day as though a steam roller ran over me. . . . I also talked with Walter Robertson while there and expected to see him at the Technology luncheon though I was not able to manage it. Walter is with the Massey Concrete Products Company.

"I tried to get in touch with Al Saunders in Detroit, but missed him due to his being out of town. He has left the Hauserman Company and is now in business for himself, selling building materials with an office in the General Motors Building. While at Syracuse a few weeks ago I tried to get in touch with Parker Kennedy who, I understand, is in Watertown with the Crew-Levick Company. It was a Sunday morning when I tried and, not finding him at home, I assumed he was down the street yodeling a few hymns. Sam Mann has forsaken engineering for the law profession and now hangs out his shingle at 149 Broadway. He reports not making much money but having lots of fun.

"Well, I guess that concludes most of the gossip for the present. If you get down this way be sure to run in and see us. Best of luck in

your new job of Class Secretary."

Walter Biggar has written me this month of November from 138

Church Street, Burlington, Vt., as follows:

It's queer how those rumors get around, but the rumor of my engagement is very true. Her name is Ruth Jane Ball. She graduated from the University of Vermont in 1921 and at the present time is assistant professor of zoölogy there. I have been up here in Vermont over a year now and like it very much. I'm a branch manager of The Fuller Brush Company, in charge of sales in northern Vermont and northern New York State. Do you know of any 1918 men up this way or in northeastern New York? I spend a great deal of time traveling and if there are any 1918 men living in the path of my journey I would like to get in touch with them.

"I suppose 1918 is still holding the luncheons. I enjoyed those very much when in Boston. I certainly wish you the best of success as Secretary and I feel sure 1918 will be well represented with notes.

My best regards to any of the fellows you see.

And still they come! Who says 1918 fellows can't find time to write letters? Harold Fitch, who helps keep the New Haven road going, writes from 485 Washington Avenue, New Haven: "Receipt of your wail' voiced in the November issue of The Review spurs me to a fourth attempt to describe my vacation as per your request. I think your 'colyum' will be more interesting if you make good your threat to use your imagination rather than to depend on me for anything interesting.

"My vacation was just what one would expect of a man with a family ten months old. (Yes, I sent in the dope at the time, but it got lost in the shuffle.) We just went down on the Sound and swam, ate and slept; and then 'back to the mines.' As you know I am still assisting the New Haven road to maintain, and if possible, to improve the superior transportation service which it affords the traveling and shipping public of southern New England. I haven't seen any Eighteeners since I can remember, but that is probably my own fault as I don't get around much now. So long for this time."

I hear from Don McArdle now and then. He is very busy at the Beacon Oil Refinery here in Everett and has arrived at the stage of hiring Technology men. Keep it up, Don, the sky is the limit. Dennie was our luncheon guest at the Engineers Club on November 1. He gave us all some very good dope about Technology registration, the dormitory campaign, undergraduate activities and so on. The fellows surely were intensely interested in the information which Dennie had and I beg to suggest that you men attend your local clubs when he comes around as he gets the real up-to-date news. Speaking of what we Technology men do when we leave the Institute, here is a list of those present at the luncheon according to jobs:

From Course II we had one sales manager in oil, one instructor, and one personnel manager. From Course IV we had two architects. From Course VI we had one electrical engineer, one personnel manager, one truck body builder and one insurance agent and organ salesman. From Course X we had one sales manager of oil burners. About

fifty per cent of this group stuck to their courses.

One obvious conclusion to draw from studying your activities is that the course you take at the Institute is not of paramount importance, and a man who has not stuck entirely to his course work after graduation need not feel badly. He has obtained the right training and has found out what work is. This may not interest all of you but may have an influence on what you tell some of those future Technology students who ask you for advice.

Many of our 1918 men have never made out the who's who folder

which the Division of Industrial Coöperation and Research keeps in its personnel file. Now the Division gets a call for some pretty good jobs every once in a while and I hope my classmates won't miss out on good openings on account of not realizing this. If you who didn't fill out the folders write me to have one sent you. I will gladly do so.

I received a letter from Casimiro Lana-Sarrate, Averida Alfonso XIII, 359 B, Barcelona, Spain, in November. He is an expert on heattreating matters and has a technical consulting office as well as a commercial organization handling special steel imported from France. He has with him two Doctors of Engineering and is very active in Spanish engineering fields. He is also professor of metallurgy at the Escuela Industrial de Barcelona.

The morning mail of November 26 brought me an announcement as follows: Mr. George H. Schumacher has the honor of announcing the marriage of his daughter, Kathryn Rogers, to Mr. Percy Wolcott Carr on Wednesday, November 24, at Newark, N. J. Mr. and Mrs. Carr will be at home after December 15 at Burton Hall, 10 Dana Street, Cambridge, Mass. Congratulations, Shorty, and the Class of 1918 extends best wishes to Mrs. Carr.

Do you wish to know where any of your Technology friends are? Let's hear from you - we people here at the Institute can probably find out. Good luck to all until next month and my thanks to all

contributors.

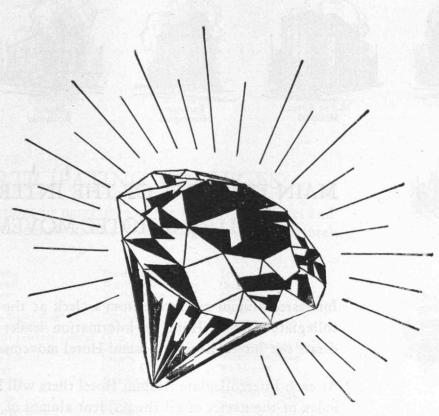
RAYMOND P. MILLER, Secretary, Room 3-210, M. I. T., Cambridge, Mass.

No notes have been received by The Review Editors from the Secretaries of this Class for inclusion in the January issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review Office. Members of the Class having news or inquiries should address them to Paul F. Swasey, Secretary, at Box 1486, Boston, Mass.

The following were the fortunate ones that attended the Class Dinner at the Lenox on November 12: Norrie Abbott, Ed Ryer, Jim Gibson, Ev Freeman, Chick Dana, Ted Hobson, Scotty Wells, K. B. White, Karl Bean, H. H. Smith, Herb Federhen, Larry Burnham, Elbridge Wason, Al Fraser and Hooper. We made each one of the boys get up and tell us what he had been doing and what gossip, scandal and hearsay he could recollect off hand about any of the other brethren. And now these impromptu remarks are spread upon the records for the edification of all.

First, let me say that our small but select party included the two prominent newly-weds of the Class, Abbott and Wells. Both had just returned from their honeymoons and we were made to feel that it was a mark of true Class spirit for them to be "out with the boys," even for such a short period. Scotty married Miss Eleanor A. Chapin of Newton on October 2. He is selling granite for construction purposes although he has also sold it for practically every other purpose including tombstones, curbstones or what have you. Norrie is with the Manufacturers Mutual in Providence and tells us that Larry Boyden is with the same company at their Chicago office. — Jim Gibson is a big real estate magnate - a realtor, you might say - in Newton. - Ev Freeman has recently associated himself with Browne and Sharpe. -Elbridge Wason is doing statistical work for the Old Colony Trust Company here in Boston. - Ed Ryer being one of those clean cut fellows is with the Lever Brothers. We know plenty of soft soap engineers who graduated in '20, Ed. — Chick Dana is a free lance industrial engineer. He is living in Wellesley Hills. And, by the way, Wellesley was nobly represented at our gathering. Fraser is a florist in said town. And Hooper has what looks like the most interesting job of the lot, in charge of the college buildings, a female college if we remember rightly. - Ted Hobson is still promoting oil burners and electric refrigerators. His little boy is four years old. '20 is getting on. Larry Burnham is a development engineer with Hood Rubber Company. Larry lives in Lexington. — Smith is plant manager of the Portsmouth Dye and Chemical Company. — Herb Federhen is chemical engineer and production man for the H. M. Sawyer Company, manufacturers in Cambridge and Watertown of the popular slickers that adorn our flippers and flappers. - K. B. White is production engineer with the Simplex Wire and Cable Company after trying his hand at practically everything from running a country newspaper to sightseeing in Europe. Karl Bean is an efficiency engineer with the North Packing and Provision Company.

(Continued on page 192)



A sermon in stones

CECIL RHODES, the diamond king, had a real idea which he passed on to diamonds in the rough.

"Be well-rounded men, broad in your sympathies," he said, and he made this the basis for selection of Rhodes scholars.

Surely there's a lesson for every man—graduates alike in arts, in pure science or in applied science—to balance the student in him with the athlete, the individualist with the man of sociability, the specialist with the "citizen of the world."

For Rhodes' idea was no theory. It is shared by hard-headed business men today.

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Interested alumni can secure from a clerk at the desk of each Intercollegiate Alumni Hotel an information leaflet which describes in detail the Intercollegiate Alumni Hotel movement.

At each Intercollegiate Alumni Hotel there will be maintained a card index of the names of all the resident alumni of all the participating institutions. This will be of especial benefit to traveling alumni in locating classmates and friends.

The current issues of the alumni publications of all the participating institutions will be on file at each Intercollegiate Alumni Hotel.

Reservation cards will be available at the clerk's desk in each designated hotel and at the alumni office in each college or university. These reservation cards will serve as a great convenience to travellers in securing advance accommodations.

The managers of all Intercollegiate Alumni Hotels are prepared to cooperate with individual alumni to the fullest extent and are also prepared to assist in the creation of new local alumni associations and in the development and extension of the activities of those already formed.



CALIFORNIAN Fresno



SAINT PAUL St. Paul



MULTNOMAH Portland, Ore.



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WALDORF-ASTORIA New York



Onondaga Syracuse



WOLVERINE Detroit



BILTMORE Los Angeles



Benjamin Franklin Philadelphia



COPLEY-PLAZA Boston



Lincoln Lincoln, Neb.



WINDERMERE Chicago

THE PARTICIPATING COLLEGES:

The alumni organizations or magazines of the following colleges and universities are participants in the Intercollegiate Alumni Hotel movement:*

Akron Alabama Amherst Bates Beloit Brown Bucknell Bryn Mawr California Carnegie Institute Case School Chicago City College New York Colgate Colorado School Mines Colorado Columbia Cornell Cumberland Duke Emory Georgia

Goucher Harvard Illinois Indiana Iowa State College James Milliken Kansas Teachers' College Kansas Lake Erie Lehigh Louisiana Maine M. I. T. Michigan State Michigan Mills Minnesota Missouri Montana Mount Holyoke Nebraska New York University

North Carolina North Dakota Northwestern Oberlin Occidental Ohio State Ohio Wesleyan Oklahoma Oregon Oregon A. Penn State Pennsylvania Purdue Radcliffe Rollins Rutgers Smith South Dakota Southern California Stanford Stevens Institute Texas A. and M.

Union Vanderbilt Vassar Vermont Virginia Washington and Lee Washington State Washington Wellesley Wesleyan College Wesleyan Western Reserve Whitman Williams Wisconsin Wooster Worcester P. I. Yale

Tevas

"In most instances both the alumni organization and the alumni magazine are participating as a unit.

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Waldorf-Astoria, New York
University Center,* New York
Copley Plaza, Boston
University Center,* Boston
Blackstone, Chicago
Windermere, Chicago
University Center,* Chicago
Benjamin Franklin, Philadelphia
Willard, Washington
Radisson, Minneapolis
Biltmore, Los Angeles

*To be built in 1926-27

Palace, San Francisco
Olympic, Seattle
Seneca, Rochester
Claremont, Berkeley
Onondaga, Syracuse
Sinton, Cincinnati
Wolverine, Detroit
Multnomah, Portland, Ore.
Sacramento, Sacramento
Californian, Fresno
Lincoln, Lincoln, Nebr.

Oakland, Oakland, Cal.
Lycoming, Williamsport, Pa.
Mount Royal, Montreal
King Edward, Toronto
Coronado, St. Louis
Bethlehem, Bethlehem, Pa.
Urbana-Lincoln, Urbana, Ill.
Saint Paul, St. Paul
Savannah, Savannah, Ga.
Schenley, Pittsburgh
Wolford, Danville, Ill.



SACRAMENTO Sacramento



Savannah, Ga.



Sinton Cincinnati



KING EDWARD Toronto



Bethlehem, Pa.



Lycoming Williamsport, Pa.

1920 Continued from page 188

Now for some of the news of the other fellows. John Barker is a contractor in Portland, Maine. He is married. — Chuck Eaton is with A. B. Leach, handling investment bonds. — C. B. Stanwood is with the Great Northern Paper Company at Millinocket, Maine. — Phil Young is married and living in Elizabeth, N. J. — Hank Couch is with Eastman Kodak at Rochester. — Bunk Warriner is running the efficiency department of Carter's Underwear Company, also married. — Jerry Tattersfield sells wool around New England. He is married and has a daughter. — Bill Honis is engineer for the Hartford Empire Company, makers of glass machinery at Hartford, Conn. He also is married and has a daughter. — Harold Bibber is still in Japan and is now married. — Heinie Haskell is production engineer for J. and P. Coats at Pawtucket. — Perk Bugbee is still dashing madly all over North America in an endeavor to cut down the fire losses. — Chuck Reed is running the Forbes Varnish Company in Cleveland.

I got some nice letters in response to the letter I sent out about the dinner, and to those who wrote them I extend here and now my hearty appreciation. But there weren't nearly enough! If you intended to

write but didn't, it's never too late. Do it now.

Dozie Brown writes: "I am with Burns and MacDonnell Engineering Company in their Kansas City office. Our work is mostly municipal work: Water-works, sewers, sewage disposal, and so on. Professor C. B. Breed told some of us one time that half of us would be selling corsets in five years. So far as I can determine, the corset business is not very rushing, so I'm still engineering. The Technology Alumni meet here about once a month for luncheon with an occasional evening dinner. '20 men seem very scarce in this locality. I was married three years ago to Harriet Elizabeth Fowler of this city, and am still married to aforesaid H. É. F. In a way I'm glad that I'll not be able to attend the dinner on November 12. The sight of the old grill room at the Lenox with the cheese, bowls of pretzels and large steins removed would probably be more than my weak constitution could stand."

Dave Fiske's letter is typical: "I decided long since to devote my life mainly to a subject which did not thrill me even mildly as a junior, thermodynamics. I have been here in engineering research and graduate study (University of Illinois) for five years. I married Anna Anderson of Jackson, Minn., in June, 1925. I discovered a week ago that I have lived all this time within a block or two of the home of

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40 KILBY STREET BOSTON, MASS.

George Burt. He called on me at that time. Norman Dawson has relatives here and visits once a year with wife and son. Otherwise my isolation from members of the Class has been complete. We have a Technology Club here, mainly consisting of engineering teachers. The character of the club is unique in its total irresponsibility, lack of order or purpose and its complete devotion to philosophical subjects. This is one of my sources of entertainment in the town."

Henry Dooley holds forth from Miami where he is with the Florida Power and Light Company. Henry says: "I am with this outfit now which is under the auspices of Electric Bond and Share. This explains the recent popularity of their issues on the New York Exchange. With two other public utility hounds, I am trying to relieve severe growing pains in this rapidly expanding outfit, and trying to weld over one hundred smaller electric, gas, water, ice and railroad companies into one standard nicely-functioning organization. You may tell anybody you see for me that since the healthy shake-down of last summer, and the healthy shake-up this fall, Florida has developed into a greater Klondike than ever. If anybody should inquire about me, ask them to drop me a line or two, here in the general offices at Miami."

drop me a line or two, here in the general offices at Miami."

A. N. Doe, the pride of Course XV, has the following to say. He writes from New York. "We have not a vast army of Twenty's in this suburb of Boston, and we haven't purchased the town yet. But we are doing a little. I note that a '20 man was Chairman of the Metropolitan Committee on Management Week last year, and one served at the National Committee part of the year. Also that the Secretary of the Metropolitan Committee was a '20 man the year before. You will note that I got in as President of the local Society of Industrial Engineers. The Secretary is also a Technology man, and the Vice-President last year was a '20 man. Two years ago the chairman of the program committee was a '20 man. None of these worthy grinds of days now gone received as great a majority as our Governor Smith in getting these jobs, but that is probably because they didn't talk as much. There is also a notable coincidence here. New York has a mayor, who is not at present a '20 man. Everett French is with the Worthington people, not far in distance from the City Hall. An elective office without a '20 man and a '20 man nearby without an elective office looks like a favorable coincidence. But it is rumored that Everett does not overwhelmingly favor enforcement of all laws, especially the later ones, so the coincidence may be more apparent than real. But '20 is doing its bit to keep the gospel of engineering, management and money in

The following from Jack Logan at Baltimore: "In April of this year I moved from Harrisburg to this city of white front steps. I am still with the Pennsylvania Railroad, being an assistant road foreman of engines (that's a big sounding title, isn't it? but it doesn't mean much). Having taken Course VI, I am now working with steam locomotives—but as a matter of fact, specializing on automatic train control. It is sometimes my duty to ride the locomotive hauling special trains such as we had last night when Michigan football rooters returned to Detroit. Should any of our rich classmates be traveling by such a special train they might look for the fellow with the dirtiest face on the locomotive, not wearing overalls. I am not married, and there seems to be no prospect of such an eventuality."

Benjamin West writes: "Since last June 9, I have been employed by the Brooklyn Edison Company as inspector in the electrical engineers' department. (The company mentions the E. E. department as above and not as usual.) The work has consisted of various inspections of customer apparatus here in Brooklyn and cost estimating on same. At this time, I am doing estimating altogether at Bush Terminal

where a large job is in progress."

Coburn, Kittredge & Co. Investments

68 Devonshire St.

Boston, Mass.

I have a good letter from W. O. Merryweather from Denver. He is with the Salt Creek Consolidated Oil Company. He says: "I am still in the woolly west fussing with the oil and mining business. Six years ago I came out here to connect with this company and learn something of the oil business. In the past two years my bosses have been venturing in other fields. We are busily engaged in a new selective flotation mill at Leadville, Colo., for the separation of low grade lead and zinc ores. This keeps me pretty busy commuting to Leadville, but the work is fascinating."

Erwin Harsch writes a nice letter from as near by as Cambridge. Ed says: "About a year ago I left Fay, Spofford and Thorndike and joined the engineering staff of the Morton C. Tuttle Company, with headquarters in the Park Square Building. About the same time I was admitted to Associate Membership in the American Society of Civil Engineers. So you see I am sticking pretty close to the inscription on my sheepskin. While my work is principally in the Boston office, I make enough trips to the construction jobs, which are scattered over the eastern half of the country, to break the monotony. I am still living in Cambridge and in fact haven't moved outside of a radius of a quarter-mile of where I lived while at the Institute. My junior engineer is now five years old and seems qualified to join the boys in their Huntington Avenue pee-rades. I have a new member of the family, born in September but not a Technology prospect this time, unless co-education becomes more popular there in the next eighteen years. I don't expect I am setting any records for offspring, but at least I have as many kinds as any of the other fellows have.

And another good letter from Florence Buckland, née Fogler. "I made a ree-mark-able speech at Vassar in February to some interested students on "The Opportunities for Women in Industrial Mathematics." They were spellbound in the presence of so much involved mathematics as turbines represent. It was my first trip to an all-lady college in school time, never having been as popular at Wellesley as some of my classmates! Since then I have demonstrated still another opportunity in the person of one Bruce Buckland, Jr., born July 20, 1926, seven and three-quarters pounds of wiggles and squawks, now swelled into thirteen and one-half pounds of wiggles and squawks, gurgles and smiles. I'll let you know later whether babies and turbines

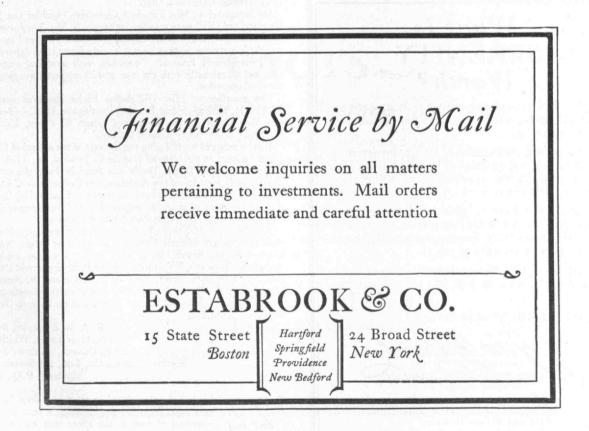
are compatible."

Vaughn Byron writes that he is still making leather but can't make the dinner. He is down in Pennsylvania somewhere. — Ed Van Deusen writes from Los Angeles where he is with the Connecticut Mutual Life Insurance Company. He says Tyson was married recently. — I also heard from Tobin who is with the Tilo Roofing Company, New York, and Stan Bragdon from Milwaukee and C. H. Klingler who is with Ellsworth and Thayer Manufacturing Company, also in Milwaukee. But they didn't submit any news. Hope they will next time.

From Dusty Miller far off in Huntington Park, Calif.: "I haven't a magic carpet and haven't time to walk so I will write. I am still making ice plants bloom in the desert with allied activities. If these refrigerating plants were not so necessary, it would be a more salubrious country. Like all good places anything that is done here is done by a Technology man, for the man who has kept the back yard dug up for three months is an old pupil of Doc Prescott's and is in charge of this sanitary district. You are authorized to say that this place 'Cal. Tech' is the biggest joke west of Rindge Technical High School, only smaller. Vote twice for me in the city election and give my love to the bove."

And Snug Ether sounds the same plaintive note from the Far West: "If it were not for the several thousand miles separating Boston and Los Angeles, you could certainly count me in on the Fifth-Year Reunion on the twelfth. I have not been back to Boston since 1920 although I have come as close as New York City twice, but only for a few days. Like many others in our Class, I am doing most everything except Civil Engineering. At present I am Los Angeles manager for the Air Reduction Sales Company, and my chief occupation is selling air and gas, or to use words more in keeping with engineering, I am selling oxygen and acetylene as well as the apparatus for oxy-acetylene welding and cutting."

Last but not least a fine letter from good old Robby Robillard, writing from Denver: "Don't look at the postmark of this letter and think that poor Robillard's health has failed him, because it hasn't. I am merely here for a few weeks on business concerning the Frigidaire Corporation, the world's largest manufacturers of electric refrigerators. (Dusty Miller of New York, please copy.) It is a long time since I wrote to our Class Secretary, and I guess those were the days when Ken Akers used to carry the Class notes around in his vest pocket



until he couldn't read them and had to throw them away. At that time, I believe that I was with the American Bridge Company at Philadelphia. Since then I put in five years as an Air Service Officer, with three of those years at McCook Field, the Engineering Division of the Army Air Service. However pleasant and interesting those five years were, they could not make up for the feeling of dissatisfaction and uncertainty aroused in every one by the meddling and muddling of Congress, and I resigned my commission last February. Since then I have been a sales engineer for the commercial division of the Frigidaire Corporation. My headquarters are Dayton and my territory the United States. The only 1920 man I have run into in my travels is Hamburger who is with the Atlanta Paper Company of Atlanta, Ga., although I have dropped into any number of Technology luncheons over the country. What the deuce has become of 1920 anyway? (That's what we'd like to know, Robby.) Mrs. Robillard (yes, that's so, if you don't know it) is a red headed Floridian and able to uphold the traditions of the South for hospitality. Let that be an invitation for 1920 to sound off when in Dayton, and I'll let them judge for themselves.'

HAROLD BUGBEE, Secretary, 9 Chandler Road, W. Medford, Mass.

Here's wishing you a happy and prosperous New Year on Thanksgiving Day. That sounds funny but I hardly finished eating turkey when I received a notice from The Review Editors saying your notes are due for the January issue — so here goes.

Last summer I bumped into Lincoln B. Barker, II, on Michigan Boulevard in Chicago. He had come over from Detroit to sell electric furnaces. I've mislaid his card but my recollection is that he is with the Detroit Electric Furnace Company. Bob said that Lawrence W. Conant, XV, is selling furniture for the Conant Furniture Company, of Camden, N. Y., and covers the east. He also said that Larry has a charming young son about a year old. Further information from the same source is that F. S. Carpenter, XV, is in the engineering department of Heywood Wakefield in Chicago and that S. E. Nichols, XV, is plant engineer of the chemical works of Van Schaach Brothers in Chicago. In Cincinnati, Max Burckett, VI, is located as production

What Is SERENITY Worth?

BUDDHA, who was born a prince, gave up his name, succession, and his heritage to attain serenity.

But we are no Buddhas; for us the serenity of mind is the happiness of human beings who are secure in the enjoyment of what they possess, whether it is much or little.

We do not have to give up the world; we have only to see a life insurance agent, who can sell us security for the future, the most direct step to serenity of mind.

The next John Hancock agent who calls on you may be able to put you on the road to serenity.

Isn't it worth while to see him?

LIFE INSURANCE COMPANY
OF BOSTON, MASSACHUSETTS

A Strong Company, Over Sixty Years in Business. Liberal as to Contract, Safe and Secure in Every Way. manager for the Ralph H. Jones Advertising Agency. Max and his wife are living at 1501 Blair Avenue, Walnut Hills, Cincinnati.

Several times I have come near seeing A. J. Shaughnessy, XV, Allerton Hotel, Chicago, but he is a hard one to catch. Shag is a traffic engineer with the Yellow Drive-It-Yourself-System and is not married. The last word from Shag was from John J. Murphy, XV, 30 East 42nd Street, New York City, who was in Chicago at a convention. Murf is with the Union Carbide and Carbon Chemical Company on development, sales and power work.

W. W. Booth, IX-B, is sales manager of bulk sales for the Cities Service Refining Company, 209 Washington Street, Boston. An urgent trip to Canada on business prevented Scripps from being at the Reunion in June — but business comes before pleasure. Stuart Nixon, XV, 34 Chandler Street, Detroit, Mich., left the Continental Motors Company some time ago and is now selling for the Sun Oil Company in Detroit. — George F. Gokey, Jr., Pitts Manor, 861 Lothrop Avenue, Detroit, is with Dodge Brothers.

From Professor Locke we hear that Richard Lee, III, was sent to South America by the American Smelting and Refining Company to carry on important engineering work for their subsidiary company, The Northern Peru Mining and Smelting Company, with headquarters at Trujillo, Peru. Dick has been expected back in the States for a vacation before continuing his foreign sojourn.

Edmund G. Farrand, X, X-A, with his sister made a tour of the U. S. A. this past summer and stopped in Chicago to see the sights. George is now at the Institute starting work for his Doctor's degree. George saw C. L. Stone, III, at the Institute in October and learned that he is working for the Phelps Dodge Company in the special testing laboratory of the Copper Queen Smelter. Stony's address is 1441 Eleventh Street, Douglas, Ariz. He is married and has one child.

Congratulations long ago should have been given to Melvin C. Rose, XIII, upon the arrival last April of twin girls, Charlotte Beatrice and Elizabeth Sewall. I have no up-to-date information on Wosee but the last word was that he was English assistant, Chesapeake and Potomac Telephone Company, 725 13th Street, N. W., Washington, D. C.

Willard G. Loesch, III, and Josephine Krantz were married last June in Dover, Ohio. Bill, I believe, is superintendent of one of the departments of the Hanna Furnace Company. Bill's address is 11851 Lake Avenue, Lakewood, Ohio.

On September 25 Miss Elizabeth Chambers Thatcher and John W. Barriger, 3rd, XV, were married in Ferguson, Mo. They now live at 3612 Sixth Avenue, Altoona, Penna. The last word that I received as to John's activities, is that he is in the transportation department of the Pennsylvania Railroad, "wrestling with unwilling engines and cars and occasionally with the men and ill-tempered weather" — on terminal operation.

The marriage of Miss Wilhelmina Eloise Hoefman and T. A. McArn, II, took place last June at Washington, D. C. — Some time ago Miss Helen Norton Lewis and Glenn E. Fargo, IX-B, were married. Further information is lacking.

Dennie received word during the summer of the arrival of Charlotte Wyer Jackson at the home of Dugald C. Jackson, Jr., VI-A, and we congratulate you, Dugle. Dugle has recently been elected to the Executive Committee of the Association of Coöperative Colleges. He is at the Speed Scientific School, University of Louisville, Louisville, Ky., as professor of electrical engineering and furthermore is Secretary-Treasurer of the Technology Club of Kentucky.

Joseph Arthur Mahoney, X, is an equipment development engineer with the Western Electric Company at 463 West Street, New York City. — W. W. Brown, II, is with Joe in a similar capacity. — Robert B. Donworth, XV, is with Dwight P. Robinson and Company, Inc., 125 East 46th Street, New York. — Richard W. Smith, XII, after receiving his M.S. from Cornell is now assistant state geologist on the Georgia Geological Survey, Dick's address is State Geological Survey, Atlanta, Ga.

R. A. St. Laurent, Secretary, 431 Oliver Street, Whiting, Ind. CAROLE A. CLARKE, Assistant Secretary, Northern Electric Co., Ltd., 121 Shearer Street, Montreal, P. Q., Canada.

Little has accumulated in the folder since last report save bills. We well remember that a year or so ago, a comment of ours to the effect that we owed Uncle Horace four bits, by the evidence of this same folder, roused Bernhard Gasser to a sympathy for our insolvency which

resulted in a post-office money order to fund the debt. Now, for the benefit of Bernhard, or any other soul interested in what the Transcript calls Divers Good Causes, we beg to report that the accumulated invoices total \$88.41. By this testimony, as well as his own, appearing slightly southward of this, one can know that Mr. Horn is getting under way with the Great Plans. Any beneficent philanthropist wishing to send in coin, specie, or draft for \$88.41 will receive the sincere thanks of various printing and multigraphing concerns, and will have his name added to the Institute pylons as soon as the Secretary is in a position to influence such matters.

But we are looking on the wrong side of the medal. The more appropriate comment is to the effect that we have no letters from which to quote, no statistics from which to abstract, no (and this is the worst of it) imagination from which to draw. To the Course Secretaries and the Directeur General de la Réunion de cinq Années, M. Henri Jean Cornet, you must look for details. Fortunately, they are copious.

We had a pleasant chat with Wallie Dibble, now of the U.S. Rubber Company in Waterbury, Conn., some days ago when the Harvard-Princeton game brought him to town. It is unfortunate that he will

have to have another excuse next year.

Yard Chittick dropped in to see us, likewise, but by ill-luck we didn't happen to be in the office.—A letter from Ed Allen dated November 12, laconic but informing, lets us know that his business address is now the Federated Metals Corporation, Cable Address "Lissberger," Woolworth Building, New York. He has been with this concern for seven or eight months, he says, but has met few '22 men, and looks forward to the next Waldorf Radio Brawl as a means of renewing acquaintance.

That is all the definite information we have, so the next stunt will be a demonstration of the fact that we know when to stop.

Stopped

Eric F. Hodgins, General Secretary, Room 3-205, M. I. T., Cambridge, Mass.

Mr. Horn's Corner

Your correspondent has been rather neglectful of the customers—cash and credit—during the past few months. But his excuses are excellent. The duties of gathering the customers together for the

coming Reunion have taken up every spare moment. But some one must be the fish and a very large one I will be if the amount of work

has anything to do with it.

Well, the first broadcast enclosing questionnaires has gone forward. Your correspondent is deeply indebted to one Mrs. Horn for her help. As for my other assistant, Mr. Donald Fell Carpenter, it should be duly recorded that his efforts were of considerable help and, also, appreciated most highly. One should bear in mind that he is partially responsible for my being placed in the exalted position of Reunion Director, or what have you. Consequently, I have shown my aforementioned appreciation in making my political appointments. One of the largest of the large plums is now Mr. Carpenter's. He is what is known as the Director's "right eye."

This is a very fine position embodying numerous duties such as giving advice that may or may not be accepted — most probably not — listening to a long line of chatter regarding plans and arrangements which will or will not be changed — most probably will — and accepting all bucks, large and small, that are passed or exchanged.

Being an engineer of vast experience, the position should naturally fall to Mr. Carpenter. Might I add that Donald's work up to the present time has been of such high caliber as to absolutely eliminate the possibility of the slightest flicker of criticism from any of the opposing political factions. His folding of letters has been very straight and his sealing of envelopes tight. Let us hope that none of the opposing faction received unscaled envelopes. There is every reason to believe that his efforts will be a credit to the party.

At this time it is well to announce that another appointment was recently made. This well ripened plum went to the party's foremost globe trotter — Mr. Eric Hodgins. Mr. Hodgins is strictly a party man having entered and, it is alleged, graduated with the Class of '22 and the appointment will meet with vociferous acclaim from all

members of the organization.

Mr. Hodgins is at present, we hope, wandering hither and you on the North or South Shore, conscientiously performing his duties as head of the Time and Place Committee. In the second broadcast the report of this important body, Mr. Eric Hodgins, will be mentioned and the members will be fully informed as to headquarters and days given over to the discussion of party problems.

FACTS

To Govern Your Business Decisions

THROUGH our intimate and widespread contacts with New England business we are able to furnish valuable first-hand information on the character of its trade and business conditions.

This is one reason why the OLD COLONY TRUST COMPANY is a desirable banking connection for corporations and individuals doing business in New England, or about to seek New England markets.

OLD COLONY TRUST COMPANY

17 COURT STREET, BOSTON, MASSACHUSETTS

NEW ENGLAND'S LARGEST TRUST COMPANY

From all accounts the results of Mr. Hodgins' lemon squashing around Europe will stand him in good stead when selecting the site for this "Die for Dear Old Technology" meeting.

While the opposing parties protest, we will take up five dollars'

worth of space to write on party membership. It has come to my attention (all great executives use that term) while acting as your correspondent and, yet some more, as walking delegate for this Reunion that some of the boys seem lost. They are in hearty accord with the principles of our party, were at one time members of the Class of 1922 and through some turn of fortune, political or otherwise, became members of some other party - in most cases 1923. In practically all cases this was against their will. Looking up the ruling on this it seems that these gentlemen, being of a voting age and Twenty-Twoers by birth, have the right to be present at this our Fifth Reunion and enter with their many friends into the wholehearted discussions of the party's problems. This is very improbable, but if there are any who do not desire to take the advantage of their rights, the party does not urge them.

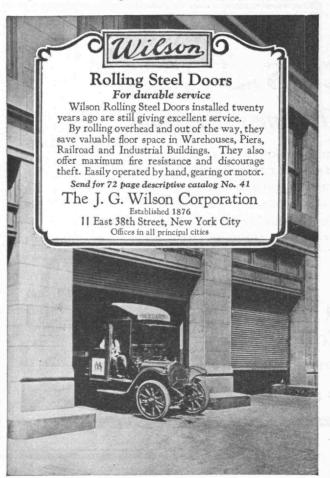
We trust that any who have not received our first broadcast and questionnaire will not feel slighted but will drop Eric or myself a line and hence be welcomed back into the folds of this great organization,

By the time you have this copy of The Review all questionnaires will be in our living room, dining room, bed room, hall closet, or some other closet. They will have been carefully perused by the Director, his Right Eye and his other assistant, Mrs. Horn, and the result thereof compiled and in the process of being mailed to you in our second broadcast for home consumption. Present indications are that there will be a prompt and large response. Until now I never realized what a strong and powerful party we are. We'll only hope Eric lemonsquashes his way into a place that's big enough for us all - otherwise he'll have to hire another hall. More of which later.

H. J. HORN, JR., Field Secretary and Reunion Director, 48 Center St., Kingston, Penna.

COURSES III AND XII

G. E. Danielson called on Professor Locke this fall and left a note saying that he was sailing from New York on October 13 to go back



to Peru. Danielson, we understand, is making good as representative of the Sullivan Machinery Company in Peru. A. S. Rairden is still with the American Steel and Wire Company but has been transferred to the New Haven plant. His address now is 49 Bedford Avenue, New Haven, Conn. — V. Efimoff is with the Ludlum Street Company, Watervliet, N. Y. — A. F. Erickson is now connected with Wheelock and Lovejoy of Cambridge as a sales engineer. His present address is 108 Queensbury Street, Boston.

R. J. Bard writes that he is now assistant geologist for the Standard Oil Company of Argentine. Most of his work lies in the province of Salta but sometimes he gets into Bolivia. Every four or five months he goes back to Buenos Aires where he sees two other '22 men, Lucien Preloran, II, and Roberto Otonello, VI, Preloran is with the General Electric Company and Otonello is in business with his father. - Paul O'Brien is still with the Aluminum Company of America in New York, selling aluminum powder for paint.

Don't forget that next June wings our five-year anniversary and every one should arrange his vacation accordingly. You men who have wandered off to foreign countries should take a month off and come

back. Many good times will be in store for you.

ROGER D. CARVER, Secretary, 35 Thetford Ave., Dorchester, Mass.

No letters means no Course VI news.

That was the proposition for our first issue of this year. It seems axiomatic, but once again we will try for a little space in the sunbeams. Not only is this a dun for Course news, but a reminder that our Fifth-Year Reunion will soon be here. Let's get together again on these pages until the spring in anticipation of a greater get-together in June.

Dan Coogan is now with the Boston office of the Erie Steam Shovel Company. Dan says that he is traveling a great deal, a large part of which is in the neighborhood of Hartford, Conn. Under cross examination he would admit that there was no other reason except that his home is there. When writing for samples, please say "I saw it advertised in The Technology Review."

At the Lynn works of the General Electric Company, I understand from several reliable authorities that the Course is represented by

Jim Norton and High Haley.

One night at the Corinthian Yacht Club, Marblehead, just as we had a nice lay on the port tack for a few square feet of smooth water, we were forced over by another coming boiling down on the starboard tack, rail under. Just slipping by the stern we noticed none other than Dewey Goddard as skipper. A hail verified our suspicions. Needless to say both of us heaved to in the wind's eye. But before more vital statistics could be obtained we were obliged to get out of the channel. Dewey was soon out of hailing distance. Our guess is that he is at the

Lynn works of the General Electric Company.

We learn from an excerpt from a letter from R. J. Bard that Roberto Otonello is in Buenos Aires, "showing his father how to run the business." — Joe Cook has returned to his old love — radio. He is with the Wireless Specialty Company at Jamaica Plain. - Don Walch is selling from the Boston Office of the General Electric Company and pushes a baby carriage for a side line — or vice versa. Don T. Knight is also selling from the same office — railway equipment, I

believe - but as far as I know does not have a side line.

A glance through the New England Tel. and Tel. Company house organ shows only one Course VI change. Paul Kellogg has been transferred to the division force at Springfield, Mass.

Russ Hubbard is with the Celotex Products Company of Boston. I haven't seen Russ for some time which is one way of saying that he must be very busy. I thereby have missed some very good fables.

FEARING PRATT, Secretary, 120 Main St., Hingham, Mass.

COURSE XIII

Not infrequently, when called upon to prepare copy under guise of notes for '22-XIII, very meagre fact has to be coupled with the deductions of a rioting imagination in order to be able to present subject matter in acceptable and worthy volume. A lunch with Bernard, however, is like attending a reunion, and fortunately indeed he lives and works not far away.

We recall deploring in a recent blast that we had no real sea dog in our group, but developments belie us. And whom else could said sea dog be but Charles Chase? For some strange reason we have always thought of Charles as a salty type of sailor, one of those men so aptly described by Arlen whose eyes had "that bleary, bitten look which

they tell you comes from being out on the high seas in all weathers." Much to our surprise we have been informed that Charles insists on being a greasy instead of salty gob. His father telephoned in answer to an inquiry, saying that he had been sailing for one of the large oil companies with second assistant's papers in the offing and liked it.

From a business acquaintance we understand that Ward Shearer, formerly with the Ore Steamship Company, is now with the Farmers Loan and Trust Company of New York City and probably working

towards the investment department.

Bernard showed me a clipping from a Washington paper reporting the death of Schoenherr's wife during the summer. If we recall correctly, that is the second bad break that boy has had and all of our group will, I'm sure, join with me in expressing sincere if belated

sympathy.

Warner, we're told, had the courage to get himself all married either this fall or in the late summer. It takes courage, we suppose, and he is to be commended for bravery even while we wish him good fortune. It is furthermore rumored but not confirmed that he is getting to be quite the turbine designer in his own neat way. Likewise, George Maling is getting on in the chosen profession. Bernard said he was with the Bethlehem Shipbuilding Company's dry dock establishment in East Boston. — E. L. Winslow is reported as having left the Ore Steamship Company and having taken up the life of a country gentleman on Cape Cod. Delightful, isn't it, to think that there are actually people who can do that without dire consequences.

It would be awfully sweet of Newhall, Eddie Morse and even Don Warner if they would write us a letter. Concerning Bixler we don't like to say too much, because we meet every now and then and to say how and where would show us both up. Al Bowers is still in Buffalo, or vicinity, so a recent letter says and momentarily expecting to leave.

There really doesn't seem to be much more to relate at this time. The score now stands: married, 7; single, 12. Choose your partners.

C. F. BLANCHARD, Secretary,

Moody's Investors Service, 35 Nassau St., New York, N. Y.

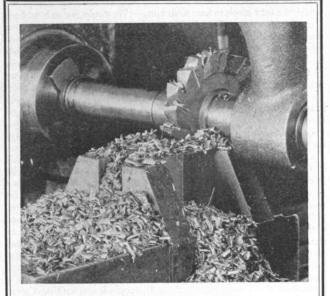
Course XV

On one of the latter Saturday evenings in October the Boston section of the Five Hundred was held at the Engineers Club. Dr. Dewey, Professor Schell, Professor Freeland and Miss Barnard were there. Just as we were surrounding the tables to "stand by" one of the boys vociferously piped up a query as to how could we start in until Eric Hodgins had arrived. The questioner was much astonished to find out that Eric is not a member of the famous, or to-be-famous, Five Hundred. That did not settle the matter in the mind of the writer and he would like to put a motion before the house that our good friend, Eric, be made a member of said Five Hundred - not an honorary member but an honest to goodness life member with all the privileges and responsibilities of the organization. We'll then ask Professor Schell to change the title of his lecture to "The Two Million Dollar Lecture." To get back to the Boston dinner — Professor Schell introduced Dr. Dewey and Professor Freeland. After a few words of advice, hope and praise from each the meeting was turned over to Miss Barnard who gave us a detailed account of her trip of last summer through the cities of the west. After the formal part of her talk was over, Miss Barnard answered questions as to individuals and their whereabouts. Miss Barnard reported that the trip was a most happy experience.

The other day a long mysterious looking envelope appeared in the morning mail. It was post-marked Wilkes-Barre, Penna. It was General Horn firing the first broadside from the Field Headquarters of the 1922 Five-Year Reunion. I guess all of us have been in business long enough to appreciate the value of lots of push and plenty of team work. Let's derive a lesson from the "Sesqui" and have nothing but team work and lots of that for this magnum opus of 1922. Heinie will be camping on our respective trails for something or other a good many times between now and June 1927. Whatever he wants, let's give it to

him and lots of it.

Through the kindness of Miss Barnard we are able to start our roll call. Dave Abrahams is still with the New England Concrete Products Company, 294 Washington Street, Boston. Dave was at the Boston dinner. — Tom Alder is now manager of the Fifth Avenue store of the Woolworth Company. His home address apparently remains as heretofore, 96 Lewellen Road, Montclair, N. J. — George Anderson is production manager of the H. T. Paiste Company of Philadelphia. — Ed Ash is still with the Ginter Company which is now the Ginter Division of the National Stores, Inc. — Bill Bainbridge is with Johns Manville, Inc., New York. — We have not heard from Hall Baker for some time and would like very much to have him tell us of his doings of the



Judge a Cutter by its Chips

THE worth of a cutter is measured by its chips, and the costs in the milling department of any plant are measured by the "cut-ability" of the cutters.

Here is a Brown & Sharpe Staggered Tooth Side Milling Cutter taking a cut 1½" wide and 2" deep in steel, and the chips tell a story of clean-cutting performance. But the picture cannot show you the long record of steady service Brown & Sharpe Cutters make on such production work, when every moment gained or lost shows up on the cost sheet.

In the constantly increasing number of plants where "rock bottom milling costs" is the watchword, you'll find much of the cutter equipment stamped Brown & Sharpe.

There is considerable information about cutters in the No. 30 Small Tool Catalog. We will gladly send a copy at your request.

BROWN & SHARPE MFG. CO. PROVIDENCE, R. I., U. S. A.

past and present. — Morris Bauer has resigned from the Army. We would like very much to hear from him. — We would like to hear from Mich Bawden too. — Freddie Blackall is, as far as we know, still with the Taft-Pierce Company of Woonsocket, R. I. — L. T. Blood is another one of the boys from whom neither Miss Barnard nor myself have received any information lately. The same applies to G. T. Boli. — H. M. Bon is in the real estate financing business with offices at 27 School Street, Boston. — Finn Borchgrevink is sales and office manager of the Norwegian Explosive Industries, Ltd. — Howard Bovey is another one of the group from whom we would like very much to receive a letter. — Bill Boyer is works engineer of the Oakland-Pontiac Division of the General Motors Corporation. Miss Barnard met Bill on the trip and enjoyed a sight-seeing trip through the works.

C. C. Bray has not yet reported to us since we heard from him back in 1925 that he was with the De Leval Turbine Company. When he lived at a place in Chicago, once called Kelley's Brickyard, he reported to us more frequently. - Chuck Brokaw is assistant secretary and treasurer of the Ovenshire Company, Los Angeles, Calif. Miss Barnard met Chuck on her trip. - Bill Brown is still with Parks Cramer with offices in the Old South Building in Boston. Brownie told me at the Boston dinner that he thought the concern would make some money now that Bill Pinkham was no longer selling for their main competitor. - Al Browning is branch manager of the Robertson-Cataract Electric Company's branch at Syracuse. — We hope to receive a letter from R. C. Buell soon .- Buzz Burroughs is still with the Cleveland Folding Machine Company but now at their New York office in the Aeolian Building. Miss Barnard saw Buzz at the New York meeting. - Bob Button is President of the Securities Corporation of America with offices at 60 Congress Street, Boston.

This roll call will be continued in a subsequent issue of the notes.

HARRIS B. McIntyre, Secretary,

17 Angell St., Providence, R. I

Since we last compiled the Class records of births, marriages and so on, things have been rather quiet. Our bachelors seem to be pretty well married off or else they have become immune to the enchantments of the fair sex. However, echoes from last June betray the fact that Fred



ENGINEERS know the value of properly installed CONVEYOR BELTS. We would welcome the opportunity of having our Engineers consult with you in determining the right belt for your requirements.

THE MANHATTAN RUBBER MFG. CO.

Executive Offices and Factories PASSAIC, N. J.

BRANCHES IN ALL THE PRINCIPAL CITIES

Almquist became the husband of Miss Isabelle MacIsaac during that month. We believe Fred is living in New York City. Congratulations are a bit late, Fred, but nevertheless sincere.

Then in August, Spike Evans was married, but we will have to wait until Spike writes in before we can give you the details. — Si Rice is in town now and the Gensec frequently has the pleasure of a noonday stroll with him across the common. — We bumped into Rollie Tubins on the street the other day. We supposed Rollie was miles away but he claims to have been in Boston for some months. He is now getting some office experience with Stone and Webster, to tie in with his field work.

Before going on to the notes from the courses, just let me have one minute to call to your attention the status of our Class endowment insurance policies. In June 1923, 455 of us took out policies and to date 88 have been allowed to lapse because of non-payment of premiums. This is altogether too large a percentage and reflects mighty poorly on us. If we thought enough of our Class fund to take out a policy in 1923, we certainly should think enough of it to continue our payments. To do otherwise is to put the whole Class in the position of one who fails to meet its obligations. The responsibility for the success of the plan rests equally on each policy holder and I want to urge each one of you to consider the matter seriously and to meet your policy payments promptly.

ROBERT E. HENDRIE, General Secretary, 12 Newton St., Cambridge, Mass. H. L. Bond, Assistant Secretary, 40 Central St., Boston, Mass.

COURSE V

Dr. Robert S. Taylor, former research associate at the Institute, has been engaged as technologist at the M. S. Bureau of Fisheries since December, 1924. In this capacity he has studied the fish industry in practically all locations of importance — from California to Canada on the West Coast, and from Texas to Maine on the East Coast. — Ralph C. Lockwood is traffic supervisor with the New York Telephone Company. Ralph writes that he has been married since August 8, 1925.

Dr. William A. Gollup has written us a wonderfully long letter but space does not permit reproduction. In it he tells how he met many of the Technology boys over in Zurich, Switzerland (where, incidentally, he received his D.Sc.). He states it was a delight to have worked under Professor Fierz with whom he studied several complex dyes. He also mentions how he and Charlie Moore, another Course V man, enjoyed the luxury of a private laboratory during the last few months of their stay abroad. And last but by no means least, Bill and Mrs. Gilbert who accompanied him on his intellectual travels came home with a young daughter, who, as Bill says, has done a good deal of traveling for a young lady.

Max Tetlow writes that he is superintending the manufacture of a new type of rubber heel up in Waterbury, Vt., and ends by saying that he is engaged to Miss Mary Brockett, of Ashmont.

EDWARD J. DANEHY, Secretary, 37 Yerxa Road, Cambridge, Mass.

There are two weddings to announce this time, one of them with a very sad climax. Fred Hungerford was married to Miss Grace M. Leavey on October 24 at St. Thomas' church in Jamaica Plain. Four days after, when Fred and his wife had moved to Syracuse to live, his wife was suddenly taken sick and died. Our deepest sympathy is extended to Fred.

The other wedding is that of Elbert C. Brown of Course VI, who married Miss Doris Winfred Potter of Glastonbury on October 20.

HAROLD G. DONOVAN, General Secretary, 2134 Park St., Hartford, Conn.

Course I

My beloved readers may have noticed that my appearances in these columns have been reduced to the legal minimum of once every two issues. They have none other than themselves to blame for since I last pieced together the few bits of news then available I have had assistance from but two of my coursemates.

Ran Giles sent me a letter from West Palm Beach, Fla. The letter reached me on the same day that the hurricane reached Palm Beach. Thereafter, I vainly watched the casualty lists for Ran's name, but he seems to have escaped. Ran is with Hazen and Whipple, consulting engineers, who are supervising some work for the West Palm



The Dunham Differential Vacuum Heating System

A System of Heating which heats a building with coal—gas—or oil fuel, without the fuel and heat-waste of over-heating in mild weather.

SEVERAL years of intensive research work with analytical operative tests in the company's research laboratories, are back of this announcement of the Dunham Differential Vacuum Heating System. The practicability and fuel-saving efficiency of this new system of heating is further proved by its actual operation in several commercial installations.

Performance, not guess work, is therefore the foundation of this announcement.

The Dunham Differential Vacuum Heating System provides a fixed differential that permits circulation of steam at all pressures and temperatures. Circulation is more uniformly distributed than possible heretofore, because the pressure (absolute) in the supply main is always slightly greater than that in the return main.

Outstanding features of this 1926 Dunham Contribution to the science of heating are (1) a much greater fuel economy when firing with coal; (2) a practical and economical use of gas and oil in all types of buildings.

The generation of steam, when starting a cold boiler begins at a much lower temperature than under atmospheric pressure because of the vacuum produced by the pump. The steam expands under the vacuum condition and fills the radiator with the result that substantially the entire radiator surface is working at either a high or low temperature.

In mild weather the differential controller on the vacuum pump maintains the condition in the return mains at a pressure less, or vacuum greater, than in the supply mains. Circulation is therefore maintained irrespective of supply pipe pressure or vacuum. The system fills with steam at pressures below atmosphere and the Dunham Traps on the radiators function to pass all air and water and to close against steam under this wide range of conditions.

In severe weather the pressure can be regulated to supply steam at such a rate that the supply piping and radiators will have a pressure greater than atmosphere.

WUNHAM-

THIS Differential System will properly heat any building without the fuel and heat-waste of over-heating in mild weather. It furnishes steam to the radiators at a high degree of vacuum with correspondingly low radiator temperature, without water accumulating in radiators or steam leakage to returns.

This is accomplished by

— regulating the pressure, or vacuum, at which the steam circulates in the supply piping —controlling the vacuum pump so that a substantially constant difference in pressure is maintained between the supply and return piping.

Pressure, or vacuum, is thus maintained on the steam supply to provide the desired room temperature, by controlling the heat emission from the radiators at the same rate as it is being lost from the building.

IT WILL be recognized that the Dunham Differential Vacuum Heating System achieves a goal of fuel-saving and temperature-comfort 1 on g sought in steam heating. We believe that this announcement marks an epoch-making advance over present types of steam heating systems, even the most modern. We shall be glad to send descriptive literature to those interested. A request on your business letterhead will bring it to you.

The Dunham Differential Vacuum Heating System is fully covered by patents and pending applications for patents in the United States, Canada and foreign countries. Any infringements will be vigorously prosecuted.

C. A. DUNHAM CO.

DUNHAM BUILDING

Boston Branch Sales Office: 136 Federal Street, Phone Liberty 4654 F. D. B. Ingalls, '01, Manager Central Division Office: 450 East Ohio Street, Chicago L. W. Millar, '02, Mgr., Phone Sup. 8861

Beach Water Company. The work consists of increasing the capacity of reservoirs and filter beds and extending the distribution system. He speaks of golf, tennis, swimming and movies. He ought to try

some real civil engineering!

A letter from A. J. Bone reached me the other day after he had read my heart-rending appeal in the November issue. The main item of interest in his letter was that on July 3, 1926, he became one with Miss Esther Nickerson of Roslindale. The bride and groom are residing at 77 Fletcher Street in that city. Bone's record of experience reads as follows: Summer of 1924, assistant at summer surveying camp; winter of 1924–25, assistant to Professors Breed and Babcock at the Institute; summer of 1925, inspector for the Pennsylvania Highway Department, inspecting bridge work; winter of 1925–26, again at the Institute; summer of 1926, employed by engineering department of the Lucerne-in-Maine land development; and at present at the Institute as instructor in railway and highway engineering.

As for myself and Montana, I have but little to offer. On October 1, I switched from the design office to the field office and am now trying to get sufficiently big and brawny to withstand a windy Montana winter. On November 6, Mr. A. E. Wiggin, '07, gave a complimentary dinner in honor of Mr. Charles Goodale, '75, whose interesting story of the west in the old days most of you probably read in one of The Reviews of last spring. At this dinner most of the Technology men in this part of the country were present and it

seemed good to foregather with such company again.

I have long since despaired of my usual procedure of begging for news and have decided to adopt a more militant method. Following are the assignments for this month: Dick Eaton is to write me what he is doing in California. Larry Feagin is to write and report what has happened to him now that the Wilson dam has been completed. Ed Jagger is to report whether or not he has yet succumbed to marriage. A. C. Read is to tell me what he is doing with his degree that I helped him get. Ed Wininger will give me an account of his work on concrete control. With a lot of luck reports on these assignments should appear in an early issue.

JOHN D. FITCH, Secretary, C. T. Main, Inc., Great Falls, Mont.



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COURSE VI

The position of scribe for the electrical engineers has been changed since the last issue, and the responsibility of getting some more Course VI news in The Review now rests with the Boston contingent of the Class. If the number of letters and news items which I have been able to pry from the course-mates is any indication of the number Miss Hardy was able to get, my only thought is to marvel at her ingenuity in getting Course VI before the public eye as much as she did. To be brief with this part of the story, I will add that my only contacts with the Course have been accidental ones—the written ones have been absolutely nil. However, despite the natural secretiveness of the boys, the following items have managed to present themselves.

Following quickly the announcement in the last issue of The Review that Bump Brown was engaged to Miss Doris Potter of Glastonbury, we hear that he was married last month and has not been heard from since. However, we still live in hopes of receiving an at-home card or other tangible evidence that Brownie still remembers

his old boy friends.

The engagement of Matt Nash, now of Poughkeepsie, to Miss Winifred Lenoir of Wakefield has come to light by roundabout sources. We still think that Matt has owed us a letter for a year or more now, and would be pleased to be put on the mailing list.

I was pleased to run into Red MacNaught at the Army and Navy Club one evening last week. Mac had just displayed his old political talents by getting himself elected to the executive committee of the Coast Artillery Reserve Officers' Association, and proceeded to loosen up the official gavel by shaking two dollars out of those present. Mac is now in the electrical contracting business in Boston, and appears to be getting on famously as a business man. From conversation with Mac and a few more of the boys, I have gathered that the concensus of opinion is that Doc Cook is holding out some news on the boys; it may be just with the idea of scooping the Associated Press by putting all the news on the air from his broadcasting station in Schenectady, or it may be just plain bashfulness. We'd like to hear from Doc, whether he has any news or not.

Mac also gave me the news that Herb Stewart is coming into his own at the Westinghouse plant in Pittsburgh, and it appears that we will have at least one well-known scientist in the Class before much

more mud flows down the Charles River.

I had a pleasant visit this summer from Lester Twichell and Vin Lysaght, who drove out to Winchester to say howdy. The former is with Stone and Webster in Boston, and the latter told a rather weird story of landing a job as a metallurgical engineer after spending some time with the Edison Company in New York. Just how Vin rates as a metallurgist appears to be a deep one, but all I can say is more power to the boys if they can fool the public that way. I also had the pleasure of a chat on the telephone with Bert Donkersly last summer. Bert is now selling for the Westinghouse office in New Haven. I ran into Dick Taylor, '23, the erstwhile lab instructor who used to smear our reports with red ink, a few weeks ago. That is, the meeting was a few weeks ago — it seems as if the smearing process was ages ago. Dick was holding up the building in which the Westinghouse offices are located in Boston, apparently undecided as to whether it would be a show or a football game for the afternoon.

To pursue the tale of accidental meetings, I must add that I came across Ron Shaw on the street a few weeks ago, shortly after his return from Florida. I don't know whether he rode north on the tail end of the blizzard or not. He was on his way to land a job somewhere, and

had little time to talk.

In the course of business last spring I spent two weeks at the Institute with the Bell System representatives, and had the pleasure of meeting the gold-dust twins, Charlton and Hazen, quite frequently. They appeared to be pretty well tied up in some kind of electrical research which has looked like so much Greek to me for the last

two years.

Within a few weeks I hope to receive from Hal Donovan a set of cards showing the locations of some more of our electricals, and shortly after that to grind out a letter to each. I hope that I will be able to beat the bogey of ten per cent replies set up by the mail order houses, because it isn't a case of sending in the small sum of seventy-nine cents to cover postage on the catalogue. Also, I will try to furnish addresses and other information to the boys who cannot locate each other, assuming, of course, that all those who do not object to being located will loosen up and send in some news. So much for this time.

F. A. BARRETT, Secretary, 19 Stevens St., Winchester, Mass.

COURSES VIII AND IX

This month's mail brought two letters from course members. The first is from Dent Massey, who writes as follows: "It was, indeed, a rude shock to receive a letter from you as the proverbial bolt from the blue. Nevertheless, I was more than delighted to know that you are still alive and functioning in your capacity as Course Secretary. I have noticed a dearth of news from all classes in The Review lately and I presume it was because of the wet weather this summer or some-

thing.
"You asked me to tell you about myself. The greatest news I have to offer is about something which took place on May 17, when Marilyn Massey arrived to make the Massey family now total four, including Mr. and Mrs. As far as business is concerned, I am still with the Massey-Harris Company, and have a position which I enjoy immensely. The official title is assistant to the superintendent of the Toronto works, in charge of the planning department. It sounds ominous, and I hope it is. It entails the responsibility of the mechanical end of the plant, which includes, of course, machine tools, jigs, fixtures, maintenance, additions, layouts and the like, and also supervision of the pricing and routing departments. As a side line the last year and a half I have been teaching a Bible class, which has been very successful. We started with eighteen members, and have reached a maximum of three hundred and seventy-five. Last winter we broadcast our services from Sunday to Sunday which was indeed interesting. We received responses from all over the country as far west as Oklahoma and as far south as Florida. This broadcasting is great stuff. It is possible that I may be at it again before the winter is over, though I rather doubt it as it entails a great deal of work. It may interest you to know that from the best information available the class is now the largest young men's Bible class in the Dominion of Canada. Technology does fit a man for various and sundry occupations.

"This last summer I was more than delighted to have had Dinty Moore visit us for a few days. He and his family were motoring through the west, and stayed over a couple of days with us. He was in the best of spirits, and it was wonderful to see him again. He certainly is a corker. I hope to be able to get down to New York before

long, and if so, I will certainly look all you boys up."

Evidently Dent is making considerable application of those four terms of Business Management which some of us spent with the Course XV gang. And the contact with the T. C. A. seems to have blossomed forth into greater fields. In common with the rest of the Class our congratulations are extended to Dent and Mrs. Massey on the addition of a second member of the new generation to the family. The letter was much appreciated, and we hope it will serve as an inspiration to the other members of the two courses to sit right down and dash off a line.

The second of the two letters comes from Bob Wertheimer. Oddly enough, both letters are from classmates who were benedicts in their undergraduate days. Hence any news in the vital statistics line has to come under the births column rather than marriages. The present rate at which the boys seem to be falling makes it appear as if that would become the rule rather than the exception in the not so distant future. For the time being, though, there is still quite a bit of company for me as a bachelor.

Bob writes as follows: "I was mighty glad to get your short note the other day — you might have loosened up a little yourself on the news question but I suppose you were turning out letters such as you wrote me by the dozen in hopes of getting a few answers. I'll try to be one of the few as I realize you've got a thankless job in being Course Secretary. (We're just beginning to realize that ourselves. Secretary's

note.)

"I have been working for the Thelmony Pulp and Paper Company since leaving school, until two months ago when I went with the Longview Fibre Company, a new enterprise which is building a one hundred ton sulphate paper mill and container board mill at Longview, Wash. The mill is rather unique in that it will use as its raw material refuse wood from the adjoining Long Bell Lumber Company saw mill. Also it is to be the first sulphate mill ever built which will not have the characteristic rotten egg odor. This has been eliminated by a new recovery process developed here at this mill during the past year. I expect to move out to Longview some time after the first of the year. Meanwhile, we're designing the plant here at Kaukouna, Wis. It's lots of fun. Briefly, that's my story to date. Best regards to any of the old guard when you see them." Thanks a lot, Bob, and we hope that in the near future time may permit a longer letter in reply than the first note.

News other than the above is scarce, and it's rather hard to invent

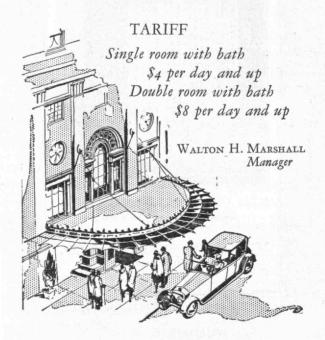


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1924 Continued

any when your eyes are crying for a bit of sleep. By the next issue we hope to be much more on the job, have our Christmas shopping out of the way, and sit down to the typewriter with news from a lot of the other members of the two courses.

Activities in New York, except for the enjoyable monthly luncheons, are just under way for the winter. There was a dinner at the Technology Club on December 9, and we are looking forward to much of the old '24 spirit in the months to come before another New York summer brings its inevitable set back.

GEORGE W. KNIGHT, Secretary, 214 Prospect St., East Orange, N. J.

25 Courses I, II, X, and XIII are the only ones to place their duty to The Review before their Thanksgiving dinners.

Sam Spiker asked me to direct all members of Course XV to write him a letter, the sooner the better. Among the news sent from The Review Office, was the notice of the death of Ed Lucy. He died on September 18, of pneumonia. William F. Sonnekalb married Miss Doris E. Dalton on September 18 in All Saints Church, Brookline, Mass. Sam Spiker was best man, and Robert P. Everett, John Hoxie, and Bruno Emil Rotheli were among the ushers. Mr. and Mrs. Sonnekalb are now living at 1474 Columbia Road, Washington, D. C.

Professor Locke sent the following concerning Robert J. Anderson, '25, of Course III: "Robert J. Anderson, Inc., Chemists, Metallurgists, and Consulting Engineers announce the opening of new commercial testing laboratories, modern in every detail. Chemical analyses, mechanical tests, metallography and radiology of metals. Aluminum metallurgy a specialty. We invite your attention to our complete facilities for handling your problems. Dr. Robert J. Anderson, President. 2416–2438 Beekman Street, Cincinnati, Ohio."

For the November dinner we had another good time in the Village.

To make it better, the Class of '26 came with us.

Frank W. Preston, Secretary, 17 Gramercy Park, New York

Course I

After running through my card index, I find that there are just six fellows about whom I have any news. Two days ago, the number was five less than it is now, but Ed McLaughlin dropped in the night before last, and, yesterday morning, we swapped stories during the daily scrape and scrub and finished over a couple of cups of automat coffee. Mac is still with the Boston and Maine and has been doing estimating work of late. Just at present he is on his vacation, and stopped off in New York on his way back from Washington to Boston.

While Max Glickman was around New York looking for a job, we used to see him at the club almost every day but when he left town we never heard what became of him. I just found out from Mac that he is now working for the Boston and Maine in Boston. Goldberg and Harmantas are in the same office. Goldberg is married, but I can't furnish any of the details. Another bit of news contributed by McLaughlin is that Steve Spencer is in the contracting business in Cambridge.

The only note which does not come from McLaughlin concerns Wamsley and was furnished by Milt Salzman. Don has cast his anchor out where the world's series pennant is hibernating and can no longer be counted among the free and single. I guess that he is still with the Missouri Pacific.

I am sorry that these notes are not more elaborate but a little news is better than none at all. The appeals for news letters are falling rather flat. Last month there was at least one reply but this month there has been none. Now, it wouldn't take any of you fellows half as long to sit down and dash off a short letter (I don't mind it being short if the news is there) as it does to get these notes together each month, so let's have a little more ambition from now on before this section shrivels up and disappears from undernourishment.

Harold V. Robichau, Secretary, 17 Gramercy Park, New York

COURSE II

"Thirty more shopping days before Christmas." That isn't to remind you of the impending holiday, for it will be all over when you read this, but you can uncork your slip-stick and figure out how far ahead this stuff has to be written. Now Ray Lucey wrote me a letter that got here the last of October but he and every one else will have to wait until the January Review before they can find out what he is doing. I don't suppose there is any particular moral to be drawn from

the above but I have to get started somehow. Well I was glad to hear from Ray, he is out in La Crosse, Wis., working for the Trane Company. It sounded as if he liked things out there - everything but the plumbing, but let him tell it. "I've been with the company since July 1925 and like the work a lot. We make heating specialties, valves, traps, regulators, vent valves, centrifugal water pumps, and vacuum pumps. I'm working in the pump department, as a sort of assistant to the manager of that department. I take his place when he is away, and when he is here I do all the odd jobs that no one else cares to do. It is very interesting though. Something different all the time. Dictating letters, figuring quotations, experimental and test work on pumps, shooting trouble on outside jobs, acting as teacher occasionally to the new class of engineers, - that's only a partial list of my duties, but it will give you an idea as to the variety. Al Hayes started with the Trane Company a year ago this month. He's now getting some experience with our Minneapolis branch manager. Charlie Dyson is also with the company. He started with me, and was transferred to our Boston office last spring. He has recently been transferred again and is now with the New York office. Dyson is married to a girl from Dorchester, and has a two months old baby." Ray adds that Al Hayesis engaged to a young lady out there, Miss Violet Goetting, a striking blonde. It seems that gentlemen still prefer them. He also passed on the word that Ed Mason is working for the Multibestos Company, Walpole, Mass., manufacturers of brake linings.

Bob Ashworth wrote a real enthusiastic letter about his work. He is learning things about textile machinery working for Ashworth Brothers, Inc. Most of his time is spent in textile mills where they are installing the equipment his company makes. He says the real thrill comes when you set up machinery and then press the button and see that it actually works. He hadn't seen many Twenty-Fivers in his travels but had heard from Freddy Dolan and Homer Duggan. Freddy is partner in a shoe factory in Haverhill and turning out fifty pairs of shoes a day. Duggan is still instructing at the Institute. John Amos Miller wanted to give up his job with the Louisville Gas and Light and get Bob to go back with him to the Institute for a M.S.

degree but I guess Bob discouraged him.

Halliburton is no longer among the missing, but out in Tulsa, Okla.

After he left the Institute, Hal finished learning to fly in the Naval Reserves at Hampton Roads. From there he went to work for the Cadillac experimental laboratory and the General Motors Proving Grounds in Detroit. It seems that Hal had had enough by March so he turned in his Hupp and turned out his new Chrysler and started for home to work for the Gulf Refining Company. Hal closed his letter by saying that he had received and expected to accept an offer from another oil company to become their assistant purchasing agent. It looks as if he wasn't going to stop until he reached the top. Let's hope he gets there.

Jack Rountree is improving. He wrote me another letter and this one only took a week to write. Jack spent the fall hunting pheasants but all he got was a good time and wet feet. — Stanley Freeman sent me a letter and an appendix which consisted of four pages of jokes. I'm sorry but Stanley's appendix absolutely cannot be printed. He has had three jobs so far and isn't quite sure whether he has had enough yet or not. Just now he is drawing pictures for Messrs. Stone and Webster, work which seemed to recall pleasant memories of Power Plant Design and Professor George B. Haven. Stanley also de-

nies that he is engaged.

Herbie Sontag broke out some good old fashioned report paper such as hasn't been seen around here for over a year and filed a report covering his activities. He started in as draftsman for the Bigelow Hartford Carpet Company of Thomsonville, Conn., later did some machine design and now is chief inspector in the Machine Shop. Herbie also adds quite casually that he has been married since last February. I think that item belongs first in the report so I can't give him an "H."

I know you will be sorry to hear that George Witham has been pretty unfortunate. He was in bed eight weeks with paralysis and is just beginning to get around a bit on crutches. George isn't letting that stop

him though and is still showing an interest in things.

Ray Wheelock sent me a letter from "the Gateway to the Ozarks and Land of a Million Smiles" which is called on the map, Carthage, Mo. I think after Ray got out there they must have had to add a few more smiles to their slogan. He says that the temperature averaged 108.77° all summer and I don't see anything in that to laugh about.



He was maintenance engineer at the experimental station of the Hercules Powder Company in New Jersey until last May and then he was sent to the Wilmington office to learn a little bookkeeping. Now he is out in Carthage as a resident engineer in charge of power, construction, maintenance, safety work, and about forty men. The factory is in the heart of the lead and zinc fields and they supply them with the dynamite and occasionally a little excitement as they have explosions of their own now and then. Ray is living far enough away so that he doesn't have to put new glass in the windows very often. He says he hears from Harry Stiles once in a while. Harry is with the Edison Electric Appliance Company in Chicago.

A letter came this evening from Buck's Ranch, Meadow Valley, Calif. It was signed Chip, but Chip said not to pay any attention to the address because he was only two jumps ahead of the sheriff and was going to move at the end of the month. Chip has had six jobs so far and now he is looking for the seventh. As yet he hasn't had to try any mechanical engineering but it looks as if by the process of elimination he soon would. The work that Chip was leaving when he wrote was civil engineering on a power project three hundred miles north of San Francisco and twenty miles from the railroad. He hinted that things were a trifle quiet there and it looked like snow and lots of it, so he was heading for the sunshine. That sounds either like Hollywood or an orange farm. I hope Chip keeps us all posted because even if he isn't collecting much moss he seems to be having a pretty good time.

Well, fellows, I sure have found out the Class of '25 has representatives elsewhere than in New York and the more I hear from you the

better I like it. Good night.

ROGER WARD, Secretary, 17 Ash St., Garden City, L. I., N. Y.

Course X

Once upon a time, there was a secretary that sent out a request for information to a supposedly live bunch of Technology graduates and got more than ten replies, but that fairy story doesn't apply to 1925. Come on, snap out of it, for what few letters I have received have proved very interesting news, and I know that your lives are not as drab as your silence would make out.

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It is interesting to note, in looking over the addresses, that so many of the fellows have spread out over the face of the globe. Our strictly course news includes the following.

As is probably known, Glen Bateman has gone back to South Africa to work with his father. - A nice long letter from Eddie Booth divulges that he is working with the Aetna Fire Insurance Company at Hartford, Conn. - George Fuller writes from New York that he is production manager for Froideveaux, a new perfume concern in New York. He also nonchalantly stated that he was married on the evening of October 2 to Miss Marie Rosetti at Montvale, Mass. His home will be at 111 No. Walnut Street, East Orange, N. J. Congratulations, George.

Cuthbert Daniel has been having a terribly hard time of it swimming in the blue Mediterranean and basking on the southern shores of France. We wonder how he gets that way after getting out of college. — Dick Wick has been touring the country prior to settling down in 1340 Warren Road, Lakewood, Ohio. He is working in the research laboratory of the National Carbon Company. — A card from our former classmate, Newall Watts, states that he is in the old army game as second lieutenant at Brooks Field, San Antonio, Texas, getting up in the world as it were. - Lester Smith is reporting great progress with the Spencer Company at Hartford, Conn. - Artz Sharpe has been promoted to head the chemical development of the Gorham Silverware Company.

A wonderful letter from Eddie Murphy, the kind we like to see, reports that he, after trying his hand at artificial silk manufacture, has finally permanently landed with the Linde Company at Buffalo and has been recently transferred to Boston where he has been traveling all over Maine, New Hampshire and Vermont, but this winter will be mostly in Rhode Island and southeastern Massachusetts. He emphatically denies any prospects of entangling alliances of any nature.

Art Worthington has joined the company in which the writer has been engaged with T. B. Mason, Course VI, as an Electrical Refrigeration dealer for the Cape. We are now representing all of southeastern Massachusetts. 1925 men will be welcome if they will drop in to see

us either in Brockton or Hyannis.

SCOTT EMERSON, Secretary, 16 Lawson Road, Winchester, Mass.

COURSE XIII

The notes on Course XIII have been conspicuous by their absence in the past, and unless there are more brilliant successes in business or more murders committed by the members, the absence of notes will still be commonplace.

Oscar Ramis was working with the writer at the Newport News Shipbuilding and Drydock Company at Newport News, Va., until February, 1926. At that time he left the U.S.A. and went to his home in Montevideo, Uraguay. I have not heard from him since his departure but at that time he had marriage in mind.

I saw Charlie Moody when I was in Boston this summer. He expects

to go with the Bethlehem Shipbuilding Corporation in the near future. He told me that George B. Connard is studying Naval Architecture in Europe. - Mac MacCleary is with the Eastern Steamship lines, and from all reports is well on the road to success with that firm.

Newport News seems to be a Mecca for the Class of 1926 and al-

though this is not the proper column for mentioning it, the following men are here: Summer B. Besse is in the production department. Bob Flaxington is in the engine drawing room. F. E. Strickland and Theodore Soo Hoo are in the hull drawing room along with the writer.

Please write and let the rest of the Class know what you are doing. Just a card will give a little dope so that our section will not die from lack of news.

WARNER LUMBARD, Secretary, 74 Hopkins St., Hilton Village, Va.

An erstwhile general manager of Technique, a tall and handsome Nordic with propensities for fur coats and charming damosels writes: "... stuck here in the sticks (Saginaw, Mich.)... I am a laboring man installing good oil burners for domestic heating. And my girl is home and everything is nice. In January I propose turning up in Cambridge again to gather the necessary degree." Bob Brand, to be sure.

The 100 per cent efficient Secretary for Course XV, he who reports every man's life history except his own, recently let leak a bit of information about himself: "I expect to leave the Chesapeake and Potomac Telephone Company this week-end and go with my father in the real estate game." The new realtor is Mooney Owen. The

Gensec is beginning to realize that one of his major duties is to report the peregrinations, the distinctions, the functioning of the Life Force in this group of ultra-modest Course Secretaries. Otherwise would go unrecorded such delectable news that Harry Boardman, mentor of IX, has been for some time working as a paper hanger and that I. R. MacDonald, of Course V, has been trying unsuccessfully to reduce Luigi's profits.

The philanthropist of the Class, Bill Lowell (he offers a pair of first-class woman's shoes to the first Course XV man married), was in The Review office recently. He, too, has a modesty complex and refuses to release for publication any of the startling facts about

himself. But murder will out, and soon.

Harry Boardman (address, Champion Porcelain Company, Butler Avenue, Detroit) asks that a plea be recorded herein for Course IX men to write him. Unless they do, there can be no notes for that Course. — Ralph Smith has been in the office. With Dick Jones, he is working for the Atlantic Refining Company in Philadelphia. He talked interestingly of Dick's amorous adventures.

The Gensec points to Course XV as an exemplary course in some of the practices it has inaugurated. Two prizes have been offered to the first married member. Other courses might follow suit, with possibilities for infinite variation. Course V, for instance, instead of encouraging connubial risks, might discourage them by starting an endowment fund for bachelors. Chippy Chase already wishes to submit himself as a beneficiary. Course VI might advantageously start a round robin among its newly-weds as an effective device for the interchange of ideas. Sid Baylor could start it off. As sociologists and anthropologists the Secretaries have great opportunities.

Analysis of the Class Notes to date show that all but Courses II, IV, VII, VIII, IX have had reports published. Courses I and XV have been reported in every issue, to the honor of their Secretaries and the glory of the Courses. Johnny Jacob (address, 107 S. Kenilworth Ave., Oak Park, Ill.) is taking over Course II and is now heroically endeavoring to unearth some news. Marron Fort, XIV,

makes his début in this issue.

On December 13, at the Twentieth Century Club in Boston the 1926 men in and about Boston met for purposes gastronomical and social. James P. Munroe gave a short talk, Dave Shepard presided, Ted Mangelsdorf (who engineered the affair) took up the collection.

J. R. KILLIAN, JR., General Secretary, 13 South Russell St., Boston, Mass.

COURSE I

By the time these notes are published, Christmas and New Year will have passed, and the year one in our Class annals will have been written. Right now we are slowly emerging from the torpor induced by a Thanksgiving dinner in one of the two restaurants of the thriving

metropolis of Phoenixville, Penna.

The past month, although witnessing no change in our dull orbit, has been productive of much information about our fellow Civils of '26. First of all we must unload some statistical dope. In response to a request of ours, Mr. Seabury, Secretary of the American Society of Civil Engineers, sent us some figures on membership. They show that twenty-six members of our Class have been elected to membership, while from all other American colleges only ninety-six men have been elected to date. Combining this fact with our knowledge of the whereabouts of most of the fellows, it seems that engineering is attractive enough right now to hold most of us.

Two changes in the faculty of Course I have been brought to our attention. Professor Sutherland is now in the land of Mustopha Kemal and (formerly) of harems where he is acting head of the Department of Civil Engineering at Roberts College. Professor Bowman is now head of the Department of Civil Engineering at Drexel Institute in Philadelphia. We have not had the opportunity to meet him yet, but we understand that after the summer at Camp Technology he was engaged in an investigation of hurricane effects in Florida. We know that we are heartily seconded by our classmates in wishing both Professor Bowman and Professor Sutherland the best of luck in their new positions.

From the Massachusetts State Highway Department, through the good offices of Charlie Kandall, comes the news that he is engaged in estimating work there, and is enjoying his job. — Costy was working in that office too, but he is out on the job now, near Worcester. Samaha is in the Sanitary Department at the State House.

"Murder will out," as the once famous Bill Shakespeare wrote; and this time it "outs" in the information that one of our Civils has abandoned his chosen calling for that of efficiency engineer. The culprit is none other than Bill Hicks (he was such a nice baby!), who is working for the Colorado Iron and Fuel Company. The information arrived in a letter written by his sister from Newburyport, and signed with a sketch but no name. Oh well, better luck next time. Considering all the above, we are inclined to be lenient and add Bill's address which is The Steel Club, Y. M. C. A., Pueblo, Colo.

Our inventive genius and former hobgoblin of the Dorms is at work now in the offices of Metcalf and Eddy, where he is engaged in trying to work out a device to use sewage flow to run a hydraulic turbine. (At least he told us that, and we accept it.) Whom else could we be referring to save George Brousseau? For the benefit of Ted Larratt, from whom we have not heard yet, we append the following paragraph from the former's letter: "Give my love to Ted Larratt. If you ever hear from him he might be interested to know that I did get my degree with the Class of '26."

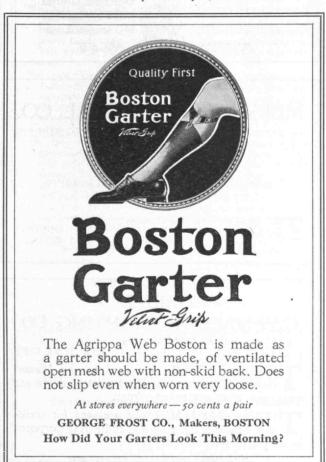
Frost has been doing office work for Bigelow and Tirrell of Boston. At last reports Al Johnson was with the Kalman Steel Company, also of Boston. Just what he is doing we can't say — not having heard. — Sam Brooks, it is rumored, has left J. R. Worcester and his present whereabouts are unknown. Packard continues with the Sanitary District of Chicago, where his chief worry, he tells me, is making

eighty political laborers do the work of forty.

Here we were just beginning to feel complacent and well satisfied with the world and ourselves, when a letter arrived from Batt, announcing that he had just returned from a tour of Europe, and had started working at the Boston office of the Standard Oil Company. As we look back on our own vacationless summer, we become suc-

cessively cynical, profane and maudlin.

Bill Stell writes from the Rochester Gas and Electric Corporation, with the news that he is designing and detailing reinforced concrete. — Johnny Deignan, writing from his home town supplies the information that he is working for the City of Summit, N. J., "doing nothing in general and everything in particular." Dan McGrew, he said, succumbed, as all eventually will, and took the fatal step into matrimony, after which he headed from the State of Missouri into the employ of the Northern Illinois Power Company. Johnny also informs us that he met Caro-Delvaille in New York as he was about to start for the Coast to work with a power company.



So goes the battle. The casualties have been few and prospects of success in our (as yet) minor engagements seem bright. The literary efforts of the men have been very gratifying so far, and so we close with the appeal: "Let not time paralyze thy right hand, nor corrosion set in on thy pen." The address is below.

WILLIAM MEEHAN, Secretary, 234 Fourth Avenue, Phoenixville, Penna.

COURSE X

A series of misadventures has prevented us from getting notes into The Review. However, the next issue ought to be another story. Sufficient time will have then elapsed for all to have had many experiences in the cold world, and to want their autobiographies published. Here's a chance to become authors with the guarantee that your manuscripts will not be turned down.

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Here's the news, so far at least, that has come into your humble servant's hands. Ed Gohr and Bill Criswell are in the Technical Service Department of the Mead Pulp and Paper Company at Chillicothe, Ohio. - Walter Lobo, an ardent disciple of Don Quixote, has made the rounds in Europe this summer, in preparation for another strenuous academic year at Louisiana State University. - Jim Offut, a gentleman from Kentucky, is with the U. S. Gypsum Company at Genoa, Ohio. - K. P. Mahoney and the Combustion Engineering Company are now erecting some boilers in Milwaukee. - A. White and Ted Mangelsdorf are back at the Institute, the former in the Research Laboratory of Applied Chemistry and the latter in the Department of Gas and Fuel Engineering.

Ralph Smith and Dick Jones have become mixed up in this oil business with the Atlantic Refining Company in Philadelphia and they report things are rather quiet in spite of the Centennial.

W. S. Graves spent the summer at the Chemical Warfare Camp and is now with the United Gas Improvement Company in Philadelphia. The whole Course wishes to congratulate Bill Taylor who was married in Northampton on August 14, and to wish the newly-weds the best of success. Bill and his bride went to Brooks Field, Texas, on their honeymoon. Let's keep track of these boys as they go wrong. Are there any more?

Your scribe is working on filtration problems for the Eastman Kodak Company. Let's have the news about yourself - become an author!

LEE CUMMINGS, Secretary, 211 Genesee Park Blvd., Rochester, N. Y.

COURSE XIV

Herein lies the beginning of a process for knitting together this lusty group of eminent electro-chemical engineers who are bent on. creating and producing everything from hydrogen pistons to carbon ions. Running true to form the majority of us seem to be doing something as far removed from electro-chemistry as one might conceive. I haven't heard from everybody but let's all crash through with news of our whereabouts and activities so that each of us will know about everybody else when the next issue of The Review appears.

CHARLES H. JOHNSON

M. I. T., '05

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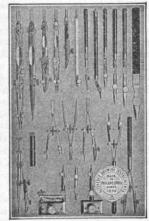


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Coleman is back here at Technology studying for his S.M. Besides fighting courses in theoretical physics and mechanics, he has been trying to make a Vreeland oscillator do its stuff in an attempt to measure the conductivities of hydrated crystals. I shouldn't be surprised if J. B. Coleman, S.B., has a secret desire to become J. B. Coleman, Sc.D.

Draper is down at Brooks Field in Texas earning his wings. He spent the summer at Technology building a new furnace for his calcium fluoride besides taking thermo courses in Course II. I think we all agree that exceptional versatility is in the plane when Draper

takes off. I wonder what he is going to tackle next?

Pete Hulme is down in Chuquicamata, Chile. He is refining copper for Anaconda. If Pete is doing any research, I think it is a safe bet that he has his apparatus spread over half of Chile. — Jewell is teaching in North Carolina. He enjoys his work considerably, I hear. There has been no news from him directly, but I think his impressions of the teaching profession would be interesting. — Keniston dropped in on us last month. He is with a welding concern in Boston. He seemed quite enthusiastic and looked quite prosperous.

So far nothing has been heard from Dawes, Dowling, Minsk, Towle or Slunder. I know that Slunder is in Detroit, probably with Dodge Brothers; Dowling has gone to Great Falls to work with Anaconda; Towle is in California; and Minsk is doing some work here in Boston in the separation of gold and platinum in jeweller's waste. — Bob Morissey is an assistant in the Physics Department. He enjoys the work considerably. Remembering Bob's keen appreciation of a good joke as we all do, you will realize that the idiotic questions that sophomores often ask could fall on no more appreciative ears than Bob's.

Romanoff is down in Great Falls analyzing slag. From all indications he is making good. He sent Coleman a clipping from the Great Falls paper which had as a headline feature "Students at Boston Tech Wreck City" with sub-titles featuring deaths and property damage that had occurred, and all that. It looks as if Technology

men were quite influential in Great Falls.

As for myself, I am back here at the Institute studying for my S.M. I am struggling with all sorts of sub-atomic chemistry, thermodynamics, spectroscopy, and what not, and attempting to continue Draper's and Dawes' work as a thesis. Once again, I ask each of you to come across with news of your interests and activities, even if you confine your dope to the back of a post card.

MARRON W. FORT, Secretary, 423 Broadway, Cambridge, Mass.

Course XV

We seem to have outdone ourselves last month and since then to have been resting on our laurels. We don't want to let this keep up. Let's hear from everybody once a month if possible and then I can keep the page chuck full of real live notes regarding Course XV men.

Sam Cole reports a great deal of loafing around New England, New York City and Philadelphia, but he's finally settled down to work in Pittsfield. He reports hearing Professor Freeland give a great talk on "The Ills of Distribution and Sales." Sam has been suffering from

poison ivy also.

Bill Lowell wants to renig on the "baby shoes" offer as the Lowell Thomas Shoe Corporation makes only ladies' fine shoes. Bill, instead, is going to donate one pair of extra special shoes to the wife of the first Course XV man married. All claimants will please submit certified statements to the Secretary before March I so that the winner of Bill's competition may be decided and the grand prize awarded. As long as the Secretary made Bill's offer for him, he'll stand behind the baby shoes. Send us word.

Bob Glidden, now with the Chrysler Motor Car Company, has announced his engagement to Miss Evelyn Duncan Peters. Con-

gratulations are in order.

From Mid-Pacific, somewhere off the Hawaiian Islands, comes word from Don King aboard the University afloat. Don reports that his classmates are the Frisbie type, as he puts it. Freshman rules are proving rather irksome to him as he has been accustomed to remaining up after nine-thirty. Don is the storekeeper and projection lantern operator, so he says not to envy him. However, Don reports two "damnably attractive women aboard" which helps matters.

Well, that's all. Let's see if we cannot furnish the Editors with more

dope for next time.

T. W. Owen, Secretary, 739 Quebec Place, Washington, D. C.

The PERSONNEL OFFICE

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Calls the attention of Alumni to the listings of available men and positions noted below.

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and should develop to be agency managers within two years. No. 1058. A large manufacturer of motor trucks needs a man who is facile at interviewing men in charge of municipal departments, who is willing to travel about and aid local agents to put across important sales of trucks. This man must be able to hold his own in debates and discussions. Experience in a municipal engineering department is an asset. Salary, \$5,000 and up.

No. 1059. A Boston concern is making a device which measures the thickness of materials which are manufactured in a continuous sheet. This is done by means of radio. There are positions open for men who understand radio and are willing to travel to various factories to apply and develop these machines. At present orders are far ahead of the capacity for production.

No. 1060. A cotton converting firm about forty miles from Boston needs a purchasing agent who can systemize a department for the buying of dyes, chemicals, machinery and supplies. The agent will also have charge of real estate, upkeep, insurance, and so on.

No. 1061. A Buffalo concern which deals with electrical power specialties has an opening for a young Technology man as representative and sales engineer for machinery, power construction, and repair work in the Buffalo district. This position leads to a share in the business for the right man.

No. 1062. The separator business will pay more attention to makers of extensive equipment in the near future. One large separator company needs a capable Technology man to visit the big equipment manufacturers. This is a high grade proposition, pays a good salary, and calls for a man of five to ten years' experience.

No. 1063. We have a request from a Massachusetts candy manufacturer to help him find two men. He wishes to consider only men who have wholly or partly worked their way through Technology, who are willing to do hard, unpleasant, long hour work for a few years. The result of such work will probably be a fine position with a share of the business. The business is growing fast enough to require a future superintendent and sales manager to relieve the owner of much detail. Only those who will stick to the business through an intensive apprenticeship should apply. Salaries will be high enough to warrant applications from the most progressive.

POSITIONS are WANTED by men as described below:

No. 2007. An engineer and executive who has had extensive industrial, mechanical and civic experience is available to handle high class agency propositions in Southern California.

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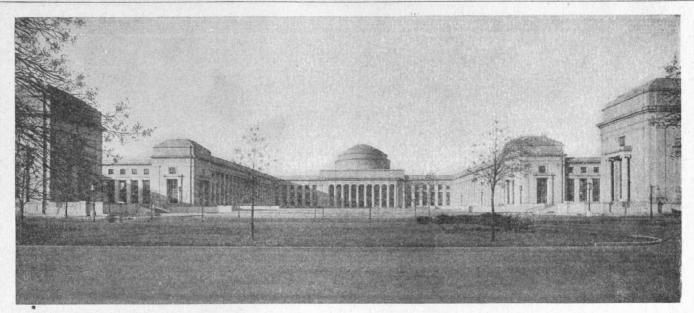
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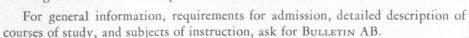
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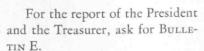
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The Technology Review Bureau will be glad to send upon request one or more copies of any publication listed below, or to forward any special inquiry to the proper authority. The Technology Alumni are particularly urged to send to it the names of young men who are prospective students, and who might be interested in learning more of the various phases of technical education.



For the announcement of courses offered in the Summer Session, ask for Bulletin C.

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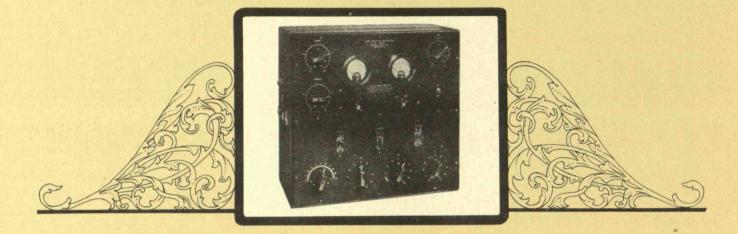
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